986

Current Federal Aid Research Report

WILDLIFE

Spring 1986

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CURRENT FEDERAL AID RESEARCH - WILDLIFE

Introduction

The Current Federal Aid Research (CFAR) report summarizes research activities presently being undertaken by the States utilizing Pittman-Robertson funds. The report has been structured for maximum usefulness by regional personnel, State planners and project officers, and Fish and Wildlife Service and other researchers. Any State proposing or conducting research on a given subject can be informed quickly of related or similar research underway in other States. This edition of CFAR-Wildlife incorporates a number of suggestions which will facilitate its use.

The report is a cross-reference list by species and habitat which will enable a researcher, planner, or other interested person to quickly obtain a summary of Federal Aid program activities being conducted by State fish and wildlife agencies. The body of CFAR-Wildlife is comprised of two sections. Section I is a summary of information concerning the various ongoing research projects; Section II lists the research objectives referenced in Section I.

Several appendices have been incorporated into the report to summarize the various research activities funded under the Federal Aid program. Appendix I lists the standards used to select the appropriate study type for each study. It is recognized that the technique of assigning a study type is somewhat subjective, however, our hope was to minimize error. Appendix II, III and IV depict distribution of costs. Note that only Federal costs of studies active on December 31 are included. Again, we recognize that these tables are not entirely complete but we tried to be as accurate as possible given the descriptive research information we received from the FWS regional offices. Note that some States, for one reason or another, may not be represented in the report. We are making efforts to include all States and invite States to submit any non-federal aid current fish/wildlife research they believe could benefit other States if only they were aware of the activity. Please contact your Federal Aid Coordinator or FWS regional research specialist to establish a mechanism to convey this research information.

This year, we have added to the objective section the principle investigator's name with telephone number and a management implication field. We think this will be helpful to you in establishing contact with key researchers and give you a brief assessment why the research is being undertaken.

These research studies also may be searched within the DIALOG system. A password permitting free local access to DIALOG Private File 920 has been issued to each State FA coordinator and should now be available to all State fish/wildlife researchers. Computer searches may also be obtained through the Fish and Wildlife Reference Service (1-800-582-3421). Researchers from FWS and State agencies supported by program funds may obtain this service at no cost. Others may have to pay a nominal fee.

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pages tightly bound

As an added benefit of using the on-line system, current federal research sponsored with Fish and Wildlife Service program funds will be included in file 920 for the first time. In addition, we anticipate adding current fish and wildlife cooperative unit descriptive research information by early summer. The consolidation of this current research information should provide a broader database of information from which researchers can improve their personal research efforts. Specific aspects of DIALOG file 920 are included elsewhere in this publication.

We hope you find this document useful and we invite your comments and suggestions. Specific questions pertaining to a given project should be directed to the appropriate regional office. Comments, requests for additional copies, etc., may be directed to:

Robert J. Sousa
Claude E. Stephens (ed.)
U.S. Fish and Wildlife Service
Division of Federal Aid, Room 3024
18 & C Streets, N.W.
Washington, D.C. 20240
(703) 235-1526

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How to Use the Report

Species or category listings in Section I are made according to the groupings described in the table of contents. Project segments covering multiple, yet similar categories may have been combined (e.g., mink/muskrat/beaver = furbearers).

After examining the species listings, the user should become familiar with the format example which explains the layout for project segments presented in Section I. The REF NO., an administrative identification code having no meaning outside of CFAR, refers the user to the objectives printed in Section II. The REF NO. is not necessarily sequential.

Each project segment's or research module's objective is headed by a species category. This information, by employing the table of contents, permits quick back referencing to project information in Section I. An additional feature is that the principal investigator with telephone number and the management implication for the study is listed in the objective section.

We would also like to remind you that the CFAR information contained in this report is available for searching on-line through the Lockheed DIALOG system. Should you desire access to Private File 920, please contact your State FA Coordinator or the FWS regional office serving your State.

FORMAT EXAMPLE

CURRENT FEDERAL AID RESEARCH - WILDLIFE

Spring 1986 ---------Edition Date
Species: Deer

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000's	STRT DATE	END DATE	REF NO.
Mixed Forest	Surveys and Research--Population Dynamics and Harvest Trends Harvest Deer Kansas	W-23-R-20	VI	40.2	8507	8606	010

8507 = July 1985
8606 = June 1986

Project Title

General Category of Research (see Appendix I)

Species in Project

Use these codes to locate objectives in Section II.

CURRENT FEDERAL AID RESEARCH - FISH AND WILDLIFE

Description of data base

The Fish and Wildlife Reference Service Data Base includes State fish and wildlife research studies (currently underway) funded by the Federal Aid in Sport Fish Restoration (D-J) and the Federal Aid in Wildlife Restoration programs. It complements the CFAR-Fish and CFAR-Wildlife reports issued annually by the Fish and Wildlife Service and also the Fish and Wildlife Reference data base (DIALOG File 957) which contains program documents from completed activities.

Subject Coverage

Planning	Disease & Parasites	Management techniques
Users	Behavior	Basic surveys
Research techniques	Migration	Lead/steel shot
Life history	Populations	(Heavy metals)
Systematics	Harvest	Endangered Species
Food habits	Stocking	
Reproduction	Habitats	
Age and Growth	Plant production and control	
Mortality	Environmental effects	

File Data

Dates	Current segment of Federal Aid Project
Updated	Annually
Size of file	2,000 records

Origin

The CFAR-Fish and Wildlife database is funded by the U.S. Fish and Wildlife Service, Division of Federal Aid. The primary purpose is to provide States readily retrievable information pertaining to research activities currently underway by State fish and wildlife agencies. Questions concerning the use and content of the database should be directed to:

Dr. Robert J. Sousa
U.S. Fish & Wildlife Service
Division of Federal Aid
Washington, D.C. 20240

(703) 235-1526

SAMPLE RECORD

Index	Record
/ST	0001414 Illinois
/TI	Evaluations of tiger muskie introduction, survival of fingerling channel catfish and partial creel census procedures.
/IN=	Investigators: Ted Storck: 217/728-4498.
/OR	Performing Org.: Department of Conservation, 605 State Office Building, 400 South Spring Street, Springfield, Illinois 62706.
TY=	Subfile: Harvest
PN=	Contract/Grant No.: F-40-R-1; 102
SD=	Project Starting Date: 8110
TD=	Project Termination Date: 8209
	Funds: $2,000
CN=	Contact: Steve Harrison: 217/782-7481
/OB	To determine the accuracy with which total harvest is estimated from a specific partial creel procedure.
	Results: Final report.
/GS	Descriptors: Freshwater fish.
/HN	Subject category: Lakes (over 40 acres).

Index

/ST	State
/TI	Title
IN=	Investigator's name
/OR	Organization performing work
TY=	Type of study
PN=	Project number
SD=	Starting date (year/month) TD= Termination date (year/month)
CN=	Contact name (usually State Federal Aid coordinator)
/OB	Objectives
/GS	Genus-species (primary species benefitting from work)
/HN	Habitat name (primary habitat in which the work is being done)

FORMAT OPTIONS

Number	Content
1	DIALOG accession number (7 digits)
2	Abbreviated full record (no objectives)
3	Abbreviated record
4	Title and objectives
5	Full record
6	Title
7	Abbreviated full record (no descriptors or subject category)
8	Title with descriptors and subject category)
9	Full Record

CFAR - WILDLIFE

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Obligation by Study Type of State Wildlife Research Supported by P-R Funds ..... Foldout Inside Back Cover

Section I

Project Data

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO
Laboratory (General)	ALASKA WILDLIFE RESEARCH AND MANAGEMENT - SERLOGIC SURVEYS FOR OTHER MICROBIAL PATHOGENS Diseases & parasites Diseases/Predators/Big Game	W-22-4	XVIIIA-1	49.4	8407	8506	
	Alaska						006
Unclassified	WILDLIFE MODULAR PLAN OPTION Diseases & parasites Diseases	WEP-100-2	400671	7.0	8507	8606	
	Maryland						007

SPRING 1986
SPECIES: HABITATS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	WILDLIFE HABITAT INVENTORY - TECHNICAL ASSISTANCE Habitats Habitats	W-163-R-8	VI	38.0	8504	8603	
	New York						013
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Planning Habitats	W-23-R-29	III	27.0	8504	8603	
	Rhode Island						008
Hardwoods (Generally Deciduous)	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Planning Upland Birds/Upland Game/Habitats	W-13-R-40	86	26.6	8507	8606	
	Missouri						024

SPRING 1986
SPECIES: WETLANDS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Non-Forested (Marsh) /Everglades	AVIAN RESEARCH Users Wetlands	FW-26-P-4	WP23-J2	10.2	8507	8606	
	Colorado						037
Wetlands/Riparian	WILDLIFE HABITAT INVENTORY - WETLANDS INVENTORY Habitats Wetlands	W-163-R-8	II	86.0	8504	8603	
	New York						015

SPRING 1986
SPECIES: VEGETATION

CURRENT FEDERAL AID RESEARCH - WILDLIFE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	ENERGY RELATIONSHIPS OF HOMEOTHERMS TO THEIR ENVIRONMENT - THE BIOLOGICAL BASIS FOR THE DETERMINATION OF CARRYING CAPACITY Habitats Vegetation	W-124-R-17	II	56.3	8404	8503	
	New York						004
General/Multiple Habitats	STATEWIDE RESEARCH PROJECT Habitats Vegetation	W-56-26	II-E-1	6.6	8510	8609	
	Arkansas						014
General/Multiple Habitats	DELAWARE'S RARE PLANT CONSERVATION PROGRAM Populations Vegetation	E-2-1	1	10.0	8506	8603	
	Delaware						002
Mixed Hardwoods and Conifers	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Food habits Vegetation	W-13-R-40	23	10.9	8507	8606	
	Missouri						012
Mixed Range	GAME RANGE RESTORATION STUDIES Plant production Vegetation	W-82-R-31	II	27.8	8504	8603	
	Utah						027
Rangeland	GAME RANGE RESTORATION STUDIES Plant production Vegetation	W-82-R-31	IV	12.0	8504	8603	
	Utah						025
Shrub-Brushland Range	GAME RANGE RESTORATION STUDIES Plant control Vegetation	W-82-R-31	VIII	5.3	8504	8603	
	Utah						024
Shrub-Brushland Range	GAME RANGE RESTORATION STUDIES Plant production Vegetation	W-82-R-31	VI	7.5	8504	8603	
	Utah						030

SPRING 1986
SPECIES: AQUATIC PLANTS

CURRENT FEDERAL AID RESEARCH - WILDLIFE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Bays/Estuaries	WILDLIFE INVESTIGATIONS Aquacultural Aquatic Plants	W-74-R-4	XII	12.0	8507	8606	
	Virginia						016
Non-Forested (Marsh) /Everglades	WILDLIFE RESEARCH Habitats Aquatic Plants	W-75-R-28	7529	28.0	8507	8606	
	South Dakota						012
Wetlands/Riparian	STATEWIDE WILDLIFE RESEARCH Mortality Ducks/Predators/Aquatic Plants	W-141-R-21	313	5.6	8507	8606	
	Wisconsin						009

SPRING 1986
SPECIES: TERRESTRIAL PLANTS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Desert Shrub	COLORADO NATURAL AREAS PLANT CONSERVATION PROGRAM Habitats Terrestrial Plants	SE-9-P-4		25.0	8507	8606	
	Colorado						039
Hardwoods (Generally Deciduous)	ENDANGERED SPECIES RESEARCH Habitats Terrestrial Plants	SE-1-4	IV	7.8	8507	8612	
	Iowa						002
Hardwoods (Generally Deciduous)	ENDANGERED SPECIES RESEARCH Life history Terrestrial Plants	SE-1-4	VI	11.3	8507	8612	
	Iowa						003
Hardwoods (Generally Deciduous)	ENDANGERED SPECIES RESEARCH Habitats Terrestrial Plants	SE-1-4	III	12.0	8507	8612	
	Iowa						004
Hardwoods (Generally Deciduous)	ENDANGERED SPECIES RESEARCH Habitats Mollusks/Terrestrial Plants	SE-1-5	VIII	60.3	8507	8612	
	Iowa						005
Hardwoods (Generally Deciduous)	ENDANGERED AND THREATENED SPECIES INVESTIGATIONS Populations Terrestrial Plants	E-1-9	807	20.0	8510	8609	
	Wisconsin						002

SPRING 1986
SPECIES: GRASSES

CURRENT FEDERAL AID RESEARCH - WILDLIFE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
	STATEWIDE WILDLIFE RESEARCH Reproduction aid Ducks/Pheasant/Grasses	W-141-R-21	127	15.5	8507	8606	
	Wisconsin						025
Cropland and Pasture	STATEWIDE WILDLIFE RESEARCH Food production or provision Grasses	W-141-R-21	108	1.1	8507	8606	
	Wisconsin						006

SPRING 1986
SPECIES: SHRUBS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Hardwoods (Generally Deciduous)	GAME RANGE RESTORATION STUDIES Plant control Shrubs/Hardwoods	W-82-R-31	IX	1.2	8504	8603	
	Utah						032
Shrub-Brushland Range	GAME RANGE RESTORATION STUDIES Plant production Shrubs	W-82-R-31	III	26.3	8504	8603	
	Utah						026
Shrub-Brushland Range	GAME RANGE RESTORATION STUDIES Plant production Cervids/Shrubs	W-82-R-31	V	20.6	8504	8603	
	Utah						031

SPRING 1986
SPECIES: HARDWOODS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Hardwoods (Generally Deciduous)	AVIAN RESEARCH Habitats Hardwoods	FW-26-P-4	WP21 Job	19.1	8507	8606	
	Colorado						023
Hardwoods (Generally Deciduous)	STATEWIDE WILDLIFE MANAGEMENT Plant production Hardwoods	W-45-17	H-S-I	3.6	8507	8606	
	Kentucky						005
Hardwoods (Generally Deciduous)	GAME RANGE RESTORATION STUDIES Plant control Shrubs/Hardwoods	W-82-R-31	IX	1.2	8504	8603	
	Utah						032

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Diseases & parasites Insects	W-26-R-17	29-P	9.3	8507	8606	
	Indiana						003

SPRING 1986
SPECIES: AMPHIBIANS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Wetlands/Riparian	ENDANGERED WILDLIFE SURVEY Populations Amphibians	SE-1-11		10.0	8510	8609	
	Wyoming						006

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Beaches/Mudflats	ENDANGERED SPECIES Basic survey Reptiles South Carolina	E-1-8	VI-A-6	9.8	8507	8606	002
Beaches/Mudflats	ENDANGERED SPECIES Reproduction Reptiles South Carolina	E-1-8	VI-A-6	32.3	8507	8606	003
Beaches/Mudflats	ENDANGERED SPECIES PROGRAM Reproduction Reptiles Virgin Islands	E-1-4	IB	13.0	8510	8609	001
Beaches/Mudflats	ENDANGERED SPECIES PROGRAM Reproduction Reptiles Virgin Islands	E-1-4	IA	12.0	8510	8609	002
Desert Shrub	STATEWIDE ENDANGERED SPECIES PROGRAM (CO-OP) Life history Reptiles Utah	SE-2-6	R-1	5.4	8504	8509	002
Desert Shrub	STATEWIDE ENDANGERED SPECIES PROGRAM (CO-OP) Life history Reptiles Utah	SE-2-7	R-1	13.6	8508	8512	004
Forested (Swamp)	ENDANGERED WILDLIFE Populations Reptiles Florida	E-1-10	II-C-3	7.8	8507	8606	007
Forested (Swamp)	ENDANGERED WILDLIFE Reproduction Reptiles Florida	E-1-10	II-C-2	3.0	8507	8606	008
Forested (Swamp)	STATEWIDE ENDANGERED WILDLIFE PROJECT Reproduction Reptiles Georgia	E-1-9	VIII	25.0	8507	8606	002

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Agricultural Land	STATTEWIDE WILDLIFE RESEARCH Populations All Wildlife	W-26-R-17	35-M	14.7	8507	8606	
	Indiana						002
Agricultural Land	HABITAT MANAGEMENT AND RESOURCE VALUES Aquacultural All Wildlife	W-127-R-13		19.6	8404	8503	
	New York						011
Agricultural Land	EVALUATION OF IMPACTS OF TOXIC SUBSTANCES ON NON-TARGET WILDLIFE Pesticides All Wildlife	W-167-R-4	II	16.0	8504	8603	
	New York						024
Agricultural Land	UPLAND WILDLIFE RESEARCH Users All Wildlife	W-103-R-29	22	13.2	8507	8606	
	Ohio						001
Forest Land	WILDLIFE INVESTIGATIONS Habitats All Wildlife	W-1-R-1	IV	7.2	8510	8509	
	American Samoa						001
Forest Land	WILDLIFE INVESTIGATIONS Basic survey All Wildlife	W-1-R-1	II	19.0	8510	8609	
	American Samoa						002
Forest Land	WILDLIFE INVESTIGATIONS Basic survey All Wildlife	W-1-R-1	III	23.7	8510	8609	
	American Samoa						003
Forest Land	INTEGRATED MANAGEMENT OF TIMBER AND WILDLIFE Management techniques All Wildlife	W-168-R-2	I	12.0	8304	8503	
	New York						025
General/Multiple Habitats	SOUTHEASTERN COOPERATIVE WILDLIFE DISEASE STUDY Diseases & parasites All Wildlife	W-39-29	1	8.0	8507	8606	
	Alabama						007
General/Multiple Habitats	STATEWIDE RESEARCH PROJECT Diseases & parasites All Wildlife	W-56-26	II-F-1	8.5	8510	8609	
	Arkansas						006

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Diseases & parasites All Wildlife	W-41-33	IX	13.0	8507	8606	
	Florida						015
General/Multiple Habitats	WILDLIFE DISEASE STUDY Diseases & parasites All Wildlife	W-28-29	I	5.3	8507	8606	
	Georgia						003
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS AND INVENTORIES Developments All Wildlife	W-170-R-10	IV-1	126.1	8507	8606	
	Idaho						024
General/Multiple Habitats	STATEWIDE WILDLIFE MANAGEMENT Diseases & parasites All Wildlife	W-45-17	WD-R-I	4.1	8507	8606	
	Kentucky						007
General/Multiple Habitats	STATEWIDE WILDLIFE INVESTIGATIONS Diseases & parasites All Wildlife	W-48-3	XIX	8.3	8507	8606	
	Mississippi						001
General/Multiple Habitats	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Planning All Wildlife	W-13-R-40	88	30.0	8507	8606	
	Missouri						038
General/Multiple Habitats	GAME BIRD STUDIES Habitats All Wildlife	W-104-R-26	15-1	13.7	8501	8512	
	New Mexico						003
General/Multiple Habitats	BIG GAME RESEARCH Diseases & parasites All Wildlife	W-124-R-10	7-1	10.0	8508	8607	
	New Mexico						013
General/Multiple Habitats	WILDLIFE SURVEY AND INVENTORIES - SURVEY AND INVENTORY SYSTEMS DESIGN AND EXECUTION Basic survey All Wildlife	W-126-R-13	IV	3.2	8404	8503	
	New York						006
General/Multiple Habitats	WILDLIFE SURVEY AND INVENTORIES - SURVEY AND INVENTORY SYSTEMS DESIGN AND EXECUTION Basic survey All Wildlife	W-126-R-14	IV	4.7	8504	8603	
	New York						009

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	WILDLIFE HABITAT INVENTORY - HABITAT INVENTORY PLANNING Planning All Wildlife New York	W-163-R-8	I	80.0	8504	8603	012
General/Multiple Habitats	EVALUATION OF IMPACTS OF TOXIC SUBSTANCES ON NON-TARGET WILDLIFE General Waterfowl/Mink/Otter/All Wildlife New York	W-167-R-4	I	81.0	8504	8603	023
General/Multiple Habitats	WILDLIFE SURVEYS AND INVENTORIES Basic survey All Wildlife No. Mariana Isles	W-1-R-4	V	15.0	8510	8609	005
General/Multiple Habitats	WILDLIFE MANAGEMENT IN NORTH CAROLINA Diseases & parasites All Wildlife North Carolina	W-57-11	G1	10.0	8510	8609	009
General/Multiple Habitats	COOPERATIVE WILDLIFE DISEASE STUDIES Diseases & parasites All Wildlife South Carolina	W-29-29	1	7.0	8507	8606	004
General/Multiple Habitats	WILDLIFE ENVIRONMENTAL INVESTIGATION Planning All Wildlife Texas	W-112-R-5	1	121.0	8412	8511	054
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Planning All Wildlife Virginia	W-74-R-4	V	19.0	8507	8606	007
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Diseases & parasites All Wildlife Virginia	W-74-R-4	III	58.5	8507	8606	010
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Mortality All Wildlife Virginia	W-74-R-4	VIII	9.0	8507	8606	013
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Research techniques All Wildlife Virginia	W-74-R-4	XIII	19.6	8507	8606	015

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Habitats All Wildlife Washington	W-95-R-2	III	17.6	8507	8606	008
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Habitats All Wildlife Washington	W-95-R-2	IV	79.7	8507	8606	009
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Habitats All Wildlife Washington	W-95-R-2	V	43.2	8507	8606	012
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH - WILDLIFE DISEASE AND PARASITE STUDIES Diseases & parasites All Wildlife West Virginia	W-48-R-2	IV	13.5	8507	8606	005
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Planning All Wildlife Wisconsin	W-141-R-21	125	0.2	8507	8606	027
Indoor Laboratory/Facility	STATEWIDE WILDLIFE RESEARCH Mortality All Wildlife Montana	W-120-R-17	WL-1.0	66.7	8507	8606	012
Laboratory (General)	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Diseases & parasites All Wildlife Alaska	W-22-5	XVIIIA-1	51.7	8507	8606	040
Mixed Hardwoods and Conifers	AVIAN RESEARCH Plant control All Wildlife Colorado	FW-26-P-4	WP-21-R-	2.1	8507	8606	034
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE RESEARCH Management techniques All Wildlife Wisconsin	W-141-R-21	231	4.1	8507	8606	031
Not Applicable	WILDLIFE SURVEYS AND STATISTICAL SERVICES Research techniques All Wildlife Michigan	W-124-R-6	I	186.5	8510	8609	003

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Shrub-Brushland Range	WILDLIFE RESEARCH Plant production All Wildlife	W-75-R-28	7530	15.8	8507	8606	
	South Dakota						009
Unclassified	STATEWIDE WILDLIFE RESEARCH Research techniques All Wildlife	W-127-R-4	90	8.3	8510	8609	
	Michigan						006
Wetlands/Riparian	STATEWIDE GAME MANAGEMENT SURVEY Users All Wildlife	W-53-R-36	3-16	6.5	8507	8606	
	Arizona						013
Wetlands/Riparian	WILDLIFE HABITAT INVENTORY Habitats All Wildlife	W-163-R-8	IX	11.0	8504	8603	
	New York						017
Wetlands/Riparian	WILDLIFE HABITAT INVENTORY Habitats All Wildlife	W-163-R-8	IV	0.5	8504	8603	
	New York						018

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Populations Predators Missouri	W-13-R-40	42	19.5	8507	8606	016
Laboratory (General)	ALASKA WILDLIFE RESEARCH AND MANAGEMENT - SERLOGIC SURVEYS FOR OTHER MICROBIAL PATHOGENS Diseases & parasites Diseases/Predators/Big Game Alaska	W-22-4	XVIIIA-1	49.4	8407	8506	006
Wetlands/Riparian	STATEWIDE WILDLIFE RESEARCH Mortality Ducks/Predators/Aquatic Plants Wisconsin	W-141-R-21	313	5.6	8507	8606	009

SPRING 1986
SPECIES: ENDANGERED MAMMALS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	ENDANGERED SPECIES RESEARCH AND DEVELOPMENT Planning Endangered Mammals/Endangered Birds New York	W-166-E-4	XI	15.2	8504	8603	020
Rangeland	STATEWIDE ENDANGERED SPECIES PROGRAM Stocking Endangered Mammals Utah	SE-1-5	M-1	36.5	8504	8512	001

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Beaches/Mudflats	IMPROVING STATUS OF ENDANGERED SPECIES IN MISSOURI Reproduction Endangered Birds	SE-1-12		15.0	8505	8709	
	Missouri						001
Forest Land	ENDANGERED WILDLIFE SURVEY Stocking Endangered Birds	SE-1-10	Job 3	20.0	8507	8606	
	Wyoming						005
General/Multiple Habitats	STATEWIDE ENDANGERED SPECIES RESEARCH Stocking Endangered Birds	SE-1-11	2	13.0	8507	8606	
	Montana						003
General/Multiple Habitats	ENDANGERED SPECIES RESEARCH AND DEVELOPMENT Planning Endangered Mammals/Endangered Birds	W-166-E-4	XI	15.2	8504	8603	
	New York						020
General/Multiple Habitats	ENDANGERED SPECIES PROGRAM Basic survey Endangered Birds	E-1-6	II	22.0	8507	8503	
	Rhode Island						002
Rivers (Large Navigable Streams)	ENDANGERED AND THREATENED SPECIES RESTORATION Populations Endangered Birds	SE-1-11	E	10.0	8510	8609	
	Nebraska						002
Shrub-Brushland Range	WILDLIFE SURVEYS AND INVENTORIES Basic survey Endangered Birds	W-1-R-4	IV	22.0	8510	8609	
	No. Mariana Isles						003
Wetlands/Riparian	ENDANGERED AND THREATENED SPECIES RESTORATION Migration Endangered Birds	SE-1-11	B	10.0	8510	8609	
	Nebraska						001
Wetlands/Riparian	ENDANGERED WILDLIFE SURVEY Behavior Endangered Birds	SE-1	Job 4	12.0	8507	8606	
	Wyoming						003

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Desert Shrub	STATUS OF THE NEW MEXICO RIDGENOSE RATTLESNAKE Systematics Nongame Wildlife	E-6-1	1	13.3	8507	8712	
	New Mexico						001
General Agricultural Land	STATEWIDE WILDLIFE RESEARCH Populations Nongame Wildlife/Hawks/Eagles/Falcons	W-127-R-4	10	6.0	8510	8609	
	Michigan						011
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Populations Nongame Wildlife	W-120-R-18	NG-1.0	21.0	8507	8606	
	Montana						013
General/Multiple Habitats	NONGAME SURVEYS AND INVENTORY Basic survey Nongame Wildlife	W-53-R-12	II-1, II	64.0	8507	8606	
	Nevada						037
General/Multiple Habitats	NONGAME SURVEYS AND INVENTORY Basic survey Nongame Wildlife	W-53-R-12	I-6	10.9	8507	8606	
	Nevada						038
General/Multiple Habitats	ENDANGERED SPECIES RESEARCH AND DEVELOPMENT Planning Nongame Wildlife	W-166-E-4	VIII	118.0	8504	8603	
	New York						021
General/Multiple Habitats	NONGAME WILDLIFE INVESTIGATIONS Basic survey Nongame Wildlife	W-103-R-16	1	67.1	8509	8608	
	Texas						007
Rangeland	SOUTHWEST REGION NONGAME INVESTIGATION Basic survey Nongame Wildlife	FW-26-P-4		19.5	8507	8606	
	Colorado						022

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	WILDLIFE INVESTIGATIONS Basic survey Bats/Nongame Birds	W-1-R-1	I	57.5	8510	8609	
	American Samoa						004
Forest Land	FISH AND WILDLIFE INVESTIGATIONS Populations Bats	FW-2-R-23	W-5-1	6.5	8510	8609	
	Guam						003
Forest Land	WILDLIFE SURVEYS AND INVENTORIES Basic survey Bats/Cervids/Feral Animals	W-1-R-4	I	28.0	8510	8609	
	No. Mariana Isles						004
General/Multiple Habitats	STATEWIDE RESEARCH PROJECT Populations Bats	W-56-26	VI-C-1	15.0	8510	8609	
	Arkansas						010
Unclassified	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Populations Bats	W-13-R-40	66	12.9	8507	8606	
	Missouri						008
Unclassified	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Populations Bats	W-13-R-40	65	7.9	8507	8606	
	Missouri						009
Unclassified	ENDANGERED SPECIES Populations Bats	E-1-3	I	14.0	8504	8603	
	West Virginia						002

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE		PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Mixed Range	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Stocking Prairie Dog	North Dakota	W-67-R-26	F-I	1.5	8507	8606	023

SPRING 1986
SPECIES: ALL BIRDS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE		PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	WILDLIFE MODULAR PLAN OPTION Basic survey All Birds	Maryland	WEP-100-2	409959	7.9	8507	8606	008
General/Multiple Habitats	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Habitats All Birds	Missouri	W-13-R-40	85	11.3	8507	8606	029
Indoor Laboratory/Facility	WILDLIFE HEALTH PROJECT Diseases & parasites Mammals/All Birds	New Jersey	W-62-R-2	IV	2.4	8505	8604	013

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	WILDLIFE INVESTIGATIONS Basic survey Bats/Nongame Birds	W-1-R-1	I	57.5	8510	8609	
	American Samoa						004
Forest Land	FISH AND WILDLIFE INVESTIGATIONS Populations Bats	FW-2-R-23	W-5-1	6.5	8510	8609	
	Guam						003
Forest Land	WILDLIFE SURVEYS AND INVENTORIES Basic survey Bats/Cervids/Feral Animals	W-1-R-4	I	28.0	8510	8609	
	No. Mariana Isles						004
General/Multiple Habitats	STATEWIDE RESEARCH PROJECT Populations Bats	W-56-26	VI-C-1	15.0	8510	8609	
	Arkansas						010
Unclassified	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Populations Bats	W-13-R-40	66	12.9	8507	8606	
	Missouri						008
Unclassified	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Populations Bats	W-13-R-40	65	7.9	8507	8606	
	Missouri						009
Unclassified	ENDANGERED SPECIES Populations Bats	E-1-3	I	14.0	8504	8603	
	West Virginia						002

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE		PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Mixed Range	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Stocking Prairie Dog		W-67-R-26	F-I	1.5	8507	8606	
		North Dakota						023

SPRING 1986
SPECIES: ALL BIRDS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE		PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	WILDLIFE MODULAR PLAN OPTION Basic survey All Birds		WEP-100-2	409959	7.9	8507	8606	
		Maryland						008
General/Multiple Habitats	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Habitats All Birds		W-13-R-40	85	11.3	8507	8606	
		Missouri						029
Indoor Laboratory/Facility	WILDLIFE HEALTH PROJECT Diseases & parasites Mammals/All Birds		W-62-R-2	IV	2.4	8505	8604	
		New Jersey						013

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Bays/Estuaries	STATEWIDE NONGAME AND ENDANGERED SPECIES PROGRAM Populations Nongame Birds	W-18-R-11	VI	9.0	8507	8606	
	Hawaii						008
Coastal Waters	MIGRATORY BIRD RESEARCH - MARINE WILDLIFE Populations Nongame Birds/Waterfowl	W-62-R-16	IV	28.2	8410	8509	
	Maine						003
Coastal Waters	MIGRATORY BIRD RESEARCH - MARINE WILDLIFE Populations Nongame Birds/Waterfowl	W-62-R-17	IV	28.2	8510	8609	
	Maine						009
Coastal Waters	SMALL GAME - FURBEARER RESEARCH Populations Nongame Birds	W-69-R-16	V	16.9	8410	8509	
	Maine						020
Forest Land	WILDLIFE INVESTIGATIONS Basic survey Bats/Nongame Birds	W-1-R-1	I	57.5	8510	8609	
	American Samoa						004
Forest Land	FISH AND WILDLIFE INVESTIGATIONS Populations Nongame Birds	FW-2-R-23	W-4-1	5.5	8510	8609	
	Guam						004
Forest Land	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Forestry Nongame Birds	W-13-R-40	70	11.3	8507	8606	
	Missouri						022
Forested (Swamp)	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Habitats Nongame Birds/Waterfowl	W-13-R-40	94	11.3	8507	8606	
	Missouri						033
General/Multiple Habitats	WILDLIFE RESEARCH OR SURVEYS - NONGAME WILDLIFE Basic survey Nongame Birds/Cranes	W-65-R-3	III	37.0	8507	8606	
	California						009
General/Multiple Habitats	NONGAME SURVEYS AND INVENTORY Basic survey Nongame Birds	W-53-R-12	I-3	23.8	8507	8606	
	Nevada						034

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	WILDLIFE SURVEYS AND INVENTORIES Basic survey Nongame Birds No. Mariana Isles	W-1-R-4	III	23.5	8510	8609	001
General/Multiple Habitats	NONGAME WILDLIFE INVESTIGATIONS Populations Nongame Birds Texas	W-103-R-16	54	14.8	8509	8608	009
Mixed Hardwoods and Conifers	STATEWIDE NONGAME AND ENDANGERED SPECIES PROGRAM Populations Nongame Birds Hawaii	W-18-R-11	II	26.3	8507	8606	006
Not Applicable	STATEWIDE GAME MANAGEMENT SURVEY Not applicable Nongame Birds/Tree Squirrel/Whitetail Deer Arizona	W-53-R-36	1-4	4.3	8507	8606	006
Rangeland	COMPREHENSIVE PLANNING OPTION Populations Nongame Birds Kansas	FW-9-P-4	8017	2.0	8507	8606	003
Wetlands/Riparian	STATEWIDE NONGAME AND ENDANGERED SPECIES PROGRAM Populations Waterfowl/Nongame Birds Hawaii	W-18-R-11	III	15.8	8507	8606	009
Wetlands/Riparian	NONGAME SURVEYS AND INVENTORY Basic survey Nongame Birds Nevada	W-53-R-12	I-2	23.8	8507	8606	033

SPRING 1986
SPECIES: PARROTS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	ENDANGERED BIRD RESEARCH Habitats Parrots/Columbiforms Puerto Rico	W-10-4	III	32.7	8507	8606	002

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Bays/Estuaries	NONGAME WILDLIFE INVESTIGATIONS Behavior Pelicans/Cormorants	W-103-R-16	43	2.6	8509	8608	
	Texas						003
General/Multiple Habitats	VIRGIN ISLANDS FISH AND WILDLIFE PROGRAM Basic survey Pelicans/Cormorants/Charadriiforms	FW-4-1	II-A	7.2	8510	8609	
	Virgin Islands						004

SPRING 1986
SPECIES: ALBATROSES, ETC

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Unclassified	VIRGIN ISLANDS FISH AND WILDLIFE PROGRAM Reproduction Albatroses, etc	FW-4-1	II-G	2.3	8510	8609	
	Virgin Islands						005
Unclassified	VIRGIN ISLANDS FISH AND WILDLIFE PROGRAM Stocking Albatroses, etc	FW-4-1	II-E	2.6	8510	8609	
	Virgin Islands						006

SPRING 1986
SPECIES: PERCHING BIRDS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Hardwoods (Generally Deciduous)	WILDLIFE MANAGEMENT RESEARCH AND PLANNING Populations Perching Birds	W-13-R-40	95	12.9	8507	8606	
	Missouri						035

SPECIES: HERONS/BITTERNS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Populations Mourning Dove/Woodcock/Herons/Bitterns Rhode Island	W-23-R-29	I	19.0	8504	8603	003
Wetlands/Riparian	STATEWIDE WILDLIFE SURVEYS Populations Herons/Bitterns Georgia	W-47-8	XV	4.5	8507	8606	023
Wetlands/Riparian	WILDLIFE MODULAR PLAN OPTION Basic survey Herons/Bitterns/Gruiforms Maryland	WEP-100-2	400673	58.1	8507	8606	046
Wetlands/Riparian	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Food habits Waterfowl/Herons/Bitterns Missouri	W-13-R-40	50	31.5	8507	8606	026

SPRING 1986

SPECIES: WOODPECKERS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
	STATEWOD ENDANGERED SPECIES PROGRAM (CO-OP) Systematics Woodpeckers Utah	SE-2-7	M-2	70.0	8508	8512	003
Mixed Hardwoods and Conifers	WILDLIFE MODULAR PLAN OPTION Populations Woodpeckers Maryland	WEP-100-2	409956	3.3	8507	8606	047

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	WILDLIFE RESEARCH OR SURVEYS - NONGAME WILDLIFE Basic survey Nongame Birds/Cranes California	W-65-R-3	III	37.0	8507	8606	009
General/Multiple Habitats	MIGRATORY SHORE AND UPLAND GAME BIRD DENSITY, DISTRIBUTION, MOVEMENT, AND HARVEST Populations Cranes Texas	W-115-R-3	7	21.0	8503	8602	059
Non-Forested (Marsh) /Everglades	ENDANGERED WILDLIFE Management techniques Cranes Florida	E-1-10	II-G-4	20.0	8507	8606	009
Non-Forested (Marsh) /Everglades	ENDANGERED WILDLIFE Stocking Cranes Florida	E-1-10	II-G-2	13.5	8507	8606	010
Non-Forested (Marsh) /Everglades	ENDANGERED WILDLIFE Management techniques Cranes Florida	E-1-10	II-G-1	14.6	8507	8606	011
Wetlands/Riparian	NONGAME SURVEYS AND INVENTORY Basic survey Cranes Nevada	W-53-R-12	I-4	9.7	8507	8606	035
Wetlands/Riparian	GAME BIRD STUDIES Populations Cranes New Mexico	W-104-R-26	19-1	12.9	8501	8512	006
Wetlands/Riparian	MIGRATORY BIRD STUDY Populations Waterfowl/Cranes Oklahoma	W-32-R-36	1-1	18.3	8507	8606	008
Wetlands/Riparian	NONGAME WILDLIFE INVESTIGATIONS Behavior Cranes Texas	W-103-R-16	52	9.3	8509	8608	002

SPRING 1986
SPECIES: SNIPE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	WILDLIFE RESEARCH OR SURVEYS - UPLAND GAME INVESTIGATIONS Basic survey Snipe/Mourning Dove/White Wing Dove California	W-65-R-3	I	12.5	8507	8606	

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Agricultural Land	MIGRATORY BIRD STUDY Harvest Hawks/Eagles/Falcons	W-32-R-36	6-1	1.8	8507	8606	
	Oklahoma						006
Bays/Estuaries	WILDLIFE INVESTIGATIONS Reproduction Hawks/Eagles/Falcons	W-16-R-35	VIII	6.5	8507	8606	
	Delaware						004
Bays/Estuaries	WILDLIFE INVESTIGATIONS Reproduction Hawks/Eagles/Falcons	W-16-R-35	VIII	6.5	8507	8606	
	Delaware						005
Coastal Waters	ENDANGERED SPECIES Basic survey Hawks/Eagles/Falcons	E-1-8	VI-C-1	18.0	8507	8606	
	South Carolina						001
Desert Shrub	PEREGRINE FALCON RESTORATION Stocking Hawks/Eagles/Falcons	EW-1-	EW-1-2	9.2	8505	8509	
	Nevada						002
Exposed Bare Rock	WILDLIFE MODULAR PLAN OPTION Stocking Hawks/Eagles/Falcons	WEP-100-2	409955	14.3	8507	8606	
	Maryland						033
Exposed Bare Rock	THREATENED AND ENDANGERED SPECIES Reproduction Hawks/Eagles/Falcons	EW-1-5	II	4.4	8505	8603	
	New Hampshire						002
Forest Land	WILDLIFE RESEARCH OR SURVEYS - NONGAME WILDLIFE Populations Hawks/Eagles/Falcons/Owls	W-65-R-3	II	96.0	8507	8606	
	California						010
Forest Land	ENDANGERED SPECIES PROGRAM Stocking Fox Squirrel/Hawks/Eagles/Falcons	E-1-8	II	11.0	8505	8605	
	Delaware						001
Forest Land	ENDANGERED SPECIES RESEARCH AND DEVELOPMENT Reproduction aid Hawks/Eagles/Falcons	W-166-E-4	II	81.0	8504	8603	
	New York						022

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	NONGAME WILDLIFE INVESTIGATIONS Reproduction Hawks/Eagles/Falcons	W-103-R-16	30	24.2	8509	8608	
	Texas						008
Forested (Swamp)	ENDANGERED WILDLIFE Populations Hawks/Eagles/Falcons	E-1-10	II-H-1	6.0	8507	8606	
	Florida						002
General Agricultural Land	STATEWIDE WILDLIFE RESEARCH Populations Nongame Wildlife/Hawks/Eagles/Falcons	W-127-R-4	10	6.0	8510	8609	
	Michigan						011
General/Multiple Habitats	STATEWIDE RESEARCH PROJECT Reproduction aid Hawks/Eagles/Falcons	W-56-26	VI-A	17.3	8510	8609	
	Arkansas						016
General/Multiple Habitats	ENDANGERED SPECIES Populations Hawks/Eagles/Falcons	E-1-6	II	25.0	8510	8609	
	Maine						001
General/Multiple Habitats	WILDLIFE MODULAR PLAN OPTION Research techniques Hawks/Eagles/Falcons	WEP-100-2	400674	9.5	8507	8606	
	Maryland						030
General/Multiple Habitats	NONGAME SURVEYS AND INVENTORY Populations Hawks/Eagles/Falcons	W-53-R-12	I-1	17.9	8540	8650	
	Nevada						032
General/Multiple Habitats	NONGAME SURVEYS AND INVENTORY Basic survey Hawks/Eagles/Falcons	W-53-R-12	I-5	11.9	8507	8606	
	Nevada						036
General/Multiple Habitats	THREATENED AND ENDANGERED SPECIES Populations Hawks/Eagles/Falcons	EW-1-5	I	3.3	8504	8603	
	New Hampshire						001
General/Multiple Habitats	ENDANGERED SPECIES PROGRAM Populations Hawks/Eagles/Falcons	E-I-6	I	3.6	8507	8503	
	Rhode Island						001

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	WILDLIFE MANAGEMENT SURVEYS Populations Hawks/Eagles/Falcons	W-95-R-20	9509	11.0	8510	8703	
		South Dakota					014
General/Multiple Habitats	STATEWIDE ENDANGERED SPECIES PROGRAM (CO-OP) Stocking Hawks/Eagles/Falcons	SE-2-7	B-3	15.0	8508	8512	
		Utah					005
General/Multiple Habitats	ENDANGERED SPECIES Populations Hawks/Eagles/Falcons	E-1-3	III	15.0	8507	8606	
		West Virginia					003
General/Multiple Habitats	ENDANGERED SPECIES Populations Hawks/Eagles/Falcons	E-1-3	IV	2.5	8507	8606	
		West Virginia					004
Hardwoods (Generally Deciduous)	PEREGRINE FALCON RESTORATION Stocking Hawks/Eagles/Falcons	E-1-8	E-1-8	15.0	8505	8605	
		Minnesota					001
Hardwoods (Generally Deciduous)	ENDANGERED SPECIES Stocking Hawks/Eagles/Falcons	E-1-10 (W)	IV	5.6	8509	8608	
		New Jersey					001
Wetlands/Riparian	NONGAME WILDLIFE RESEARCH AND SURVEY PROJECT Stocking Hawks/Eagles/Falcons	W-48-2	I	21.8	8510	8609	
		Alabama					014
Wetlands/Riparian	STATEWIDE ENDANGERED WILDLIFE PROJECT Stocking Hawks/Eagles/Falcons	E-1-9	VII	20.0	8507	8606	
		Georgia					001
Wetlands/Riparian	WILDLIFE MODULAR PLAN OPTION Populations Hawks/Eagles/Falcons	WEP-100-2	409953	4.6	8507	8606	
		Maryland					023
Wetlands/Riparian	WILDLIFE MODULAR PLAN OPTION Populations Hawks/Eagles/Falcons	WEP-100-2	409950	7.9	8507	8606	
		Maryland					034

SPRING 1986
SPECIES: HAWKS/EAGLES/FALCONS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Wetlands/Riparian	WILDLIFE MODULAR PLAN OPTION Reproduction Hawks/Eagles/Falcons Maryland	WEP-100-2	409952	2.8	8507	8606	035
Wetlands/Riparian	WILDLIFE MODULAR PLAN OPTION Habitats Hawks/Eagles/Falcons Maryland	WEP-100-2	409951	10.0	8507	8606	036
Wetlands/Riparian	PEREGRINE FALCON REINTRODUCTION Stocking Hawks/Eagles/Falcons Nevada	EW-1	1	18.8	8410	8509	001

SPRING 1986
SPECIES: OWLS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	WILDLIFE RESEARCH OR SURVEYS - NONGAME WILDLIFE Populations Hawks/Eagles/Falcons/Owls California	W-65-R-3	II	96.0	8507	8606	010

SPRING 1986
SPECIES: CHARADRIIFORMS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	VIRGIN ISLANDS FISH AND WILDLIFE PROGRAM Basic survey Pelicans/Cormorants/Charadriiforms Virgin Islands	FW-4-1	II-A	7.2	8510	8609	004

SPRING 1986
SPECIES: MIGRATORY BIRDS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	MIGRATORY SHORE AND UPLAND GAME BIRD DENSITY, DISTRIBUTION, MOVEMENT, AND HARVEST Mortality Migratory Birds Texas	W-115-R-3	3	2.5	8503	8602	057

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	UPLAND WILDLIFE AND FUBEARER RESEARCH Populations Mourning Dove/Woodcock New Jersey	W-64-R-1	II	2.5	8508	8606	019
Forest Land	WILDLIFE INVESTIGATIONS Populations Woodcock Virginia	W-74-R-4	XV	24.0	8507	8606	014
General/Multiple Habitats	MIGRATORY BIRD RESEARCH - WOODCOCK Populations Woodcock Maine	W-62-R-16	II	14.2	8410	8509	005
General/Multiple Habitats	MIGRATORY BIRD RESEARCH - WOODCOCK Populations Woodcock Maine	W-62-R-17	II	14.2	8510	8609	006
General/Multiple Habitats	WILDLIFE MODULAR PLAN OPTION Harvest Woodcock Maryland	WEP-100-2	409921	3.1	8507	8606	026
General/Multiple Habitats	GAME POPULATION TREND AND HARVEST SURVEY - CENSUS AND BANDING OF GAME BIRDS AND MAMMALS Reproduction Mourning Dove/Woodcock Massachusetts	W-35-R-28	III	8.8	8507	8606	003
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Populations Mourning Dove/Woodcock/Herons/Bitterns Rhode Island	W-23-R-29	I	19.0	8504	8603	003
Not Applicable	WILDLIFE MODULAR PLAN OPTION Migration Woodcock/Mourning Dove Maryland	WEP-100-2	409923	7.8	8507	8606	011

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Agricultural Land	WILDLIFE INVESTIGATIONS Harvest Whitetail Deer/Waterfowl/Cottontail/Quail Delaware	W-16-R-35	I	84.0	8507	8606	003
Agricultural Land	WILDLIFE INVESTIGATIONS Harvest Whitetail Deer/Waterfowl/Cottontail/Quail Delaware	W-16-R-35	I	84.0	8507	8606	008
Coastal Waters	MIGRATORY BIRD RESEARCH - MARINE WILDLIFE Populations Nongame Birds/Waterfowl Maine	W-62-R-16	IV	28.2	8410	8509	003
Coastal Waters	MIGRATORY BIRD RESEARCH - MARINE WILDLIFE Populations Nongame Birds/Waterfowl Maine	W-62-R-17	IV	28.2	8510	8609	009
Cropland and Pasture	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Life history Waterfowl/Pheasant North Dakota	W-67-R-26	B-III	50.0	8507	8606	014
Forest Land	STATEWIDE ENDANGERED WILDLIFE PROGRAM Populations Waterfowl Hawaii	E-W	I,II,III	110.0	8507	8606	001
Forested (Swamp)	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Habitats Nongame Birds/Waterfowl Missouri	W-13-R-40	94	11.3	8507	8606	033
General/Multiple Habitats	STATEWIDE RESEARCH PROJECT Research techniques Waterfowl Arkansas	W-56-26	V-A-3	4.9	8510	8609	004
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Harvest Waterfowl/Migratory Game Birds Indiana	W-26-R-17	17-I	19.7	8507	8606	008
General/Multiple Habitats	WILDLIFE SURVEYS AND INVENTORIES - COORDINATING FIELD INVENTORIES AND DATA COLLECTION Basic survey Black Bear/Whitetail Deer/Furbearers/Waterfowl New York	W-126-R-13	I	27.9	8404	8503	007

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	EVALUATION OF IMPACTS OF TOXIC SUBSTANCES ON NON-TARGET WILDLIFE General Waterfowl/Mink/Otter/All Wildlife New York	W-167-R-4	I	81.0	8504	8603	023
General/Multiple Habitats	WETLAND WILDLIFE RESEARCH Harvest Waterfowl Ohio	W-104-R-28	4	14.4	8507	8606	005
General/Multiple Habitats	WETLAND WILDLIFE RESEARCH AND MANAGEMENT Planning Waterfowl Ohio	W-104-R-28	5	12.5	8507	8606	008
Indoor Laboratory/Facility	WILDLIFE HEALTH PROJECT Diseases & parasites Waterfowl New Jersey	W-62-R-2	I	21.0	8505	8604	016
Non-Forested (Marsh) /Everglades	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Populations Waterfowl North Dakota	W-67-R-26	D-I	24.0	8507	8606	016
Non-Forested (Marsh) /Everglades	TEXAS WATERFOWL Lake improvements Waterfowl Texas	W-106-R-13	9	3.8	8510	8609	014
Non-Forested (Marsh) /Everglades	TEXAS WATERFOWL Water quantity Waterfowl Texas	W-106-R-13	12	10.0	8510	8609	016
Non-Forested (Marsh) /Everglades	TEXAS WATERFOWL Planning Waterfowl Texas	W-106-R-13	11	92.7	8510	8609	017
Non-Forested (Marsh) /Everglades	STATEWIDE WATERFOWL MANAGEMENT STUDY Populations Waterfowl Utah	W-117-LDR-	B-1	50.8	8507	8606	013
Not Applicable	MASSACHUSETTS WATERFOWL RESEARCH PROGRAM - ATLANTIC WATERFOWL COUNCIL ACTIVITIES Planning Waterfowl Massachusetts	W-42-R-19	IX	6.0	8504	8603	011

SPRING 1986
SPECIES: WATERFOWL

CURRENT FEDERAL AID RESEARCH - WILDLIFE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Ponds (40 Acres or Less)	STATEWIDE WILDLIFE INVESTIGATIONS Behavior Waterfowl	W-48-33	XXV	21.8	8507	8606	
		Mississippi					011
Reservoirs (Over 40 Acres)	STATEWIDE GAME MANAGEMENT SURVEY Mortality Waterfowl	W-53-R-36	3-14	12.0	8507	8606	
		Arizona					011
Reservoirs (Over 40 Acres)	STATEWIDE GAME MANAGEMENT SURVEY Harvest Waterfowl	W-53-R-36	3-13	3.0	8507	8606	
		Arizona					014
Water (Multi-Aquatic)	WILDLIFE MANAGEMENT SURVEYS Populations Waterfowl	W-95-R-20	9506	36.0	8510	8703	
		South Dakota					022
Wetlands/Riparian	STATEWIDE WILDLIFE INVESTIGATIONS Basic survey Waterfowl	W-35-33	I	35.9	8510	8609	
		Alabama					004
Wetlands/Riparian	STATEWIDE RESEARCH PROJECT Basic survey Waterfowl	W-56-26	V-A-1	7.5	8510	8609	
		Arkansas					009
Wetlands/Riparian	WILDLIFE RESEARCH OR SURVEYS - WATERFOWL STUDIES Populations Waterfowl	W-65-R-3	I,II,III	162.6	8507	8606	
		California					002
Wetlands/Riparian	EASTERN CANADA COOPERATIVE BANDING PROJECT Basic survey Waterfowl	W-36-R-21	I	4.5	8501	8512	
		Connecticut					001
Wetlands/Riparian	EASTERN CANADA COOPERAIVE BANDING PROJECT Basic survey Waterfowl	W-36-R-21	I	4.5	8501	8512	
		Connecticut					002
Wetlands/Riparian	WILDLIFE INVESTIGATIONS Populations Waterfowl	W-49-R-11	X	134.0	8410	8509	
		Connecticut					012

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Wetlands/Riparian	STATEWIDE WILDLIFE RESEARCH Heavy metals Waterfowl	W-41-33	XVII	3.0	8507	8606	
		Florida					018
Wetlands/Riparian	STATEWIDE WILDLIFE SURVEYS Basic survey Waterfowl	W-47-8	II	6.6	8507	8606	
		Georgia					015
Wetlands/Riparian	STATEWIDE NONGAME AND ENDANGERED SPECIES PROGRAM Populations Waterfowl/Nongame Birds	W-18-R-11	III	15.8	8507	8606	
		Hawaii					009
Wetlands/Riparian	STATEWIDE WILDLIFE SURVEYS AND INVENTORIES Populations Waterfowl	W-170-R-10	II-2	23.9	8507	8606	
		Idaho					016
Wetlands/Riparian	STATEWIDE WILDLIFE RESEARCH Planning Waterfowl	W-26-R-17	19-I	3.1	8507	8606	
		Indiana					006
Wetlands/Riparian	STATEWIDE WILDLIFE MANAGEMENT Populations Waterfowl	W-45-17	W-S-I	77.2	8507	8606	
		Kentucky					008
Wetlands/Riparian	STATEWIDE WILDLIFE INVESTIGATIONS Basic survey Waterfowl	W-29-33	II	52.5	8507	8606	
		Louisiana					001
Wetlands/Riparian	MIGRATORY BIRD RESEARCH - WATERFOWL Populations Waterfowl	W-62-R-16	I	98.6	8410	8509	
		Maine					002
Wetlands/Riparian	MIGRATORY BIRD RESEARCH - WATERFOWL Populations Waterfowl	W-62-R-17	I	98.6	8510	8609	
		Maine					007
Wetlands/Riparian	WILDLIFE MODULAR PLAN OPTION Populations Waterfowl	WEP-100-2	409930	32.9	8507	8606	
		Maryland					014

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Wetlands/Riparian	WILDLIFE MODULAR PLAN OPTION Harvest Waterfowl	WEP-100-2	409937	2.8	8507	8606	
	Maryland						015
Wetlands/Riparian	WILDLIFE MODULAR PLAN OPTION Habitats Waterfowl	WEP-100-2	400683	14.4	8507	8606	
	Maryland						017
Wetlands/Riparian	WILDLIFE MODULAR PLAN OPTION Populations Waterfowl	WEP-100-2	400672	4.7	8507	8606	
	Maryland						018
Wetlands/Riparian	WILDLIFE MODULAR PLAN OPTION Populations Waterfowl	WEP-100-2	409932	3.5	8507	8606	
	Maryland						019
Wetlands/Riparian	WILDLIFE MODULAR PLAN OPTION Harvest Waterfowl	WEP-100-2	400684	18.0	8507	8606	
	Maryland						022
Wetlands/Riparian	WILDLIFE MODULAR PLAN OPTION Harvest Waterfowl	WEP-100-2	409934	4.7	8507	8606	
	Maryland						025
Wetlands/Riparian	WILDLIFE MODULAR PLAN OPTION Populations Waterfowl	WEP-100-2	409933	9.5	8507	8606	
	Maryland						038
Wetlands/Riparian	WILDLIFE MODULAR PLAN OPTION Habitats Waterfowl	WEP-100-2	409938	0.4	8507	8606	
	Maryland						039
Wetlands/Riparian	WILDLIFE MODULAR PLAN OPTION Basic survey Waterfowl	WEP-100-2	409988	1.0	8507	8606	
	Maryland						040
Wetlands/Riparian	WILDLIFE MODULAR PLAN OPTION Populations Waterfowl	WEP-100-2	409939	3.9	8507	8606	
	Maryland						041

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Wetlands/Riparian	MASSACHUSETTS WATERFOWL RESEARCH PROGRAM - WATERFOWL INVENTORY FLIGHTS Populations Waterfowl Massachusetts	W-42-R-19	VIII	7.0	8504	8603	010
Wetlands/Riparian	MASSACHUSETTS WATERFOWL RESEARCH PROGRAM - MASSACHUSETTS EXPERIMENTAL WATERFOWL SEASONS Harvest Waterfowl Massachusetts	W-42-R-19	XII	5.0	8504	8603	014
Wetlands/Riparian	MASSACHUSETTS WATERFOWL RES. PROJECT Planning Waterfowl Massachusetts	W-42-R-19	XVII	3.0	8504	8603	015
Wetlands/Riparian	STATEWIDE WILDLIFE INVESTIGATIONS Basic survey Waterfowl Mississippi	W-48-33	I	40.3	8507	8606	005
Wetlands/Riparian	STATEWIDE WILDLIFE INVESTIGATIONS Users Waterfowl Mississippi	W-48-33	XXVI	18.0	8507	8606	009
Wetlands/Riparian	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Food habits Waterfowl/Herons/Bitterns Missouri	W-13-R-40	50	31.5	8507	8606	026
Wetlands/Riparian	STATEWIDE WILDLIFE PROGRAM Populations Waterfowl Nevada	W-48-R-17	I-14	68.9	8507	8606	010
Wetlands/Riparian	STATEWIDE WILDLIFE PROGRAM Heavy metals Waterfowl Nevada	W-48-R-17	R XV-4	9.2	8507	8606	029
Wetlands/Riparian	STATEWIDE WILDLIFE PROGRAM Planning Waterfowl/Upland Game Nevada	W-48R-17	V-1,2,3	19.9	8507	8606	031
Wetlands/Riparian	EASTERN CANADA COOPERATIVE BANDING PROJECT Basic survey Waterfowl New Hampshire	W-49-R-20	I	3.7	8501	8512	009

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Wetlands/Riparian	EASTERN CANADA COOPERATIVE BANDING PROJECT Basic survey Waterfowl New Hampshire	W-49-R-20	I	3.7	8501	8512	010
Wetlands/Riparian	STATEWIDE WILDLIFE SURVEY - WATERFOWL SURVEY AND INVENTORY STUDIES Basic survey Waterfowl New Hampshire	W-9-R-39	I	19.8	8507	8606	021
Wetlands/Riparian	EASTERN COOP. WATERFOWL BANDING Research techniques Waterfowl New Jersey	W-46-R-21	I	3.4	8501	8612	006
Wetlands/Riparian	GAME BIRD STUDIES Populations Waterfowl New Mexico	W-104-R-26	WP10-J1	14.9	8501	8512	010
Wetlands/Riparian	GAME BIRD STUDIES Heavy metals Waterfowl New Mexico	W-104-R-26	WP10-J8	14.9	8501	8512	011
Wetlands/Riparian	ATLANTIC FLYWAY COOP - BANDING PROGRAM Research techniques Waterfowl New York	W-119-R-20	I	4.5	8504	8603	002
Wetlands/Riparian	WATERFOWL MANAGEMENT RESEARCH Basic survey Waterfowl New York	W-39-R-38	XI	20.3	8404	8503	026
Wetlands/Riparian	WILDLIFE MANAGEMENT IN NORTH CAROLINA Harvest Waterfowl North Carolina	W-57-11	E1	69.8	8510	8609	002
Wetlands/Riparian	WILDLIFE SURVEYS Users Waterfowl Ohio	W-126-R(S)	12	4.8	8507	8606	019
Wetlands/Riparian	MIGRATORY BIRD STUDY Harvest Waterfowl/Big Game/Upland Birds Oklahoma	W-32-R-36	2-1	17.4	8507	8606	004

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Wetlands/Riparian	MIGRATORY BIRD STUDY Planning Waterfowl	W-32-R-36	8-1	74.8	8507	8606	
	Oklahoma						007
Wetlands/Riparian	MIGRATORY BIRD STUDY Populations Waterfowl/Cranes	W-32-R-36	1-1	18.3	8507	8606	
	Oklahoma						008
Wetlands/Riparian	WILDLIFE INVESTIGATIONS Harvest Waterfowl	W-23-R-29	II	18.0	8504	8603	
	Rhode Island						006
Wetlands/Riparian	ATLANTIC WATERFOWL COOPERATIVE PRE-SEASON WATERFOWL PROGRAM Basic survey Waterfowl	W-29-R-21	I	3.0	8501	8512	
	Rhode Island						011
Wetlands/Riparian	ATLANTIC WATERFOWL COOPERATIVE PRE-SEASON WATERFOWL PROGRAM Basic survey Waterfowl	W-29-R-21	I	3.0	8501	8512	
	Rhode Island						012
Wetlands/Riparian	WILDLIFE RESEARCH Harvest Waterfowl	W-75-R-28	7512	7.5	8507	8606	
	South Dakota						003
Wetlands/Riparian	NONGAME WILDLIFE INVESTIGATIONS Populations Waterfowl	W-103-R-16	40	12.8	8509	8608	
	Texas						004
Wetlands/Riparian	TEXAS WATERFOWL Habitats Waterfowl	W-106-R-13	2	32.1	8510	8609	
	Texas						011
Wetlands/Riparian	TEXAS WATERFOWL Mortality Waterfowl	W-106-R-13	6	15.0	8510	8609	
	Texas						012
Wetlands/Riparian	TEXAS WATERFOWL Harvest Waterfowl	W-106-R-13	1	155.0	8510	8609	
	Texas						013

SPRING 1986
SPECIES: WATERFOWL

CURRENT FEDERAL AID RESEARCH - WILDLIFE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Wetlands/Riparian	STATEWIDE WATERFOWL MANAGEMENT STUDY Harvest Waterfowl Utah	W-117-LDR-	A-2	13.5	8507	8606	014
Wetlands/Riparian	STATEWIDE WATERFOWL MANAGEMENT STUDY Populations Waterfowl Utah	W-117-LDR-	A-1	49.8	8507	8606	015
Wetlands/Riparian	STATEWIDE WATERFOWL MANAGEMENT STUDY Harvest Waterfowl Utah	W-117-LDR-	A-3	24.3	8507	8606	016
Wetlands/Riparian	STATEWIDE WATERFOWL MANAGEMENT STUDY Diseases & parasites Waterfowl Utah	W-117-LDR-	A-4	12.5	8507	8606	017
Wetlands/Riparian	WATERFOWL INVESTIGATIONS - ASSISTANCE TO FLYWAY AND STATE PROGRAMS Planning Waterfowl Vermont	W-33-R-24	IV	8.3	8507	8606	001
Wetlands/Riparian	WATERFOWL INVESTIGATIONS - SURVEY OF ANNUAL WATERFOWL POPULATIONS AND MORTALITY Populations Waterfowl Vermont	W-33-R-24	I	86.0	8507	8606	003
Wetlands/Riparian	WATERFOWL INVESTIGATIONS - SURVEY OF CONTROLLED WATERFOWL HUNTING RESULTS ON SELECTED MANAGEMENT UNITS Harvest Waterfowl Vermont	W-33-R-24	VI	24.6	8507	8606	004
Wetlands/Riparian	WILDLIFE INVESTIGATIONS Populations Waterfowl Virginia	W-74-R-4	XVI	25.2	8507	8606	002
Wetlands/Riparian	STATEWIDE WILDLIFE RESEARCH Planning Waterfowl Washington	W-95-R-2	I-1; II-	85.6	8501	8607	005

SPRING 1986
SPECIES: SWANS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Non-Forested (Marsh) /Everglades	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Stocking Swans Missouri	W-13-R-40	73	9.0	8507	8606	028

SPRING 1986
SPECIES: GEESE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Populations Geese North Dakota	W-67-R-26	D-VIII	1.5	8507	8606	017
Mixed Range	STATEWIDE NONGAME AND ENDANGERED SPECIES PROGRAM - NENE INVESTIGATIONS Populations Geese Hawaii	W-18-R-11	I	22.5	8507	8606	007

SPRING 1986
SPECIES: CANADA GEESE

CURRENT FEDERAL AID RESEARCH - WILDLIFE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
	COOPERATIVE WATERFOWL PROJECT Research techniques Puddle Ducks/Canada Geese Massachusetts	W-40-R-21	I	3.0	8501	8512	009
Cropland and Pasture	WILDLIFE MODULAR PLAN OPTION Behavior Canada Geese Maryland	WEP-100-2	400675	37.0	8507	8606	043
Cropland and Pasture	STATEWIDE WILDLIFE RESEARCH Basic survey Canada Geese Wisconsin	W-141-R-20	320	3.3	8407	8506	004
General Agricultural Land	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Life history Canada Geese Missouri	W-13-R-40	83	17.3	8507	8606	020
General/Multiple Habitats	STATEWIDE RESEARCH PROJECT Stocking Canada Geese Arkansas	W-56-26	V-B-1	24.4	8510	8609	012
General/Multiple Habitats	ECOLOGY OF CANADA GEESE¦ SOUTHERN ILLINOIS WINTERING GROUNDS, FLYWAY ROUTES, AND BREEDING GROUND UTILIZATION Migration Canada Geese Illinois	W-95-R-3	1	19.9	8507	8606	021
General/Multiple Habitats	MIGRATORY BIRD RESEARCH - CANADA GOOSE Stocking Canada Geese Maine	W-62-R-16	III	18.0	8410	8509	004
General/Multiple Habitats	MIGRATORY BIRD RESEARCH - CANADA GOOSE Stocking Canada Geese Maine	W-62-R-17	III	18.0	8510	8609	008
General/Multiple Habitats	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Reproduction Canada Geese Missouri	W-13-R-40	46	7.5	8507	8606	015
General/Multiple Habitats	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Basic survey Canada Geese Missouri	W-13-R-40	12	35.1	8507	8606	017

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Populations Canada Geese Missouri	W-13-R-40	82	13.6	8507	8606	031
General/Multiple Habitats	WETLAND WILDLIFE RESEARCH Harvest Canada Geese Ohio	W-104-R-28	2	22.7	8507	8606	006
General/Multiple Habitats	WETLAND WILDLIFE RESEARCH Populations Canada Geese Ohio	W-104-R-28	1	20.8	8507	8606	007
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Management techniques Canada Geese Wisconsin	W-141-R-21	314	1.9	8507	8606	010
Non-Forested (Marsh) /Everglades	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Populations Canada Geese North Dakota	W-67-R-26	D-III	10.5	8507	8606	015
Non-Forested (Marsh) /Everglades	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Culture & rearing Canada Geese North Dakota	W-67-R-26	D-VI	19.5	8507	8606	027
Non-Forested (Marsh) /Everglades	WILDLIFE RESEARCH Stocking Canada Geese South Dakota	W-75-R-28	7514	20.3	8507	8606	004
Not Applicable	ECOLOGY OF CANADA GEESE; SOUTHERN ILLINOIS WINTERING GROUNDS, FLYWAY ROUTES, AND BREEDING GROUND UTILIZATION Planning Canada Geese Illinois	W-95-R-3	7	5.0	8507	8606	026
Reservoirs (Over 40 Acres)	STATEWIDE GAME MANAGEMENT SURVEYS Mortality Canada Geese Arizona	W-53-R-36	3-12	3.9	8507	8606	012
Reservoirs (Over 40 Acres)	STATEWIDE RESEARCH PROJECT Food production or provision Canada Geese Arkansas	W-56-24	V-B-2	32.3	8510	8609	001

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Tundra	ECOLOGY OF CANADA GEESE¦ SOUTHERN ILLINOIS WINTERING GROUNDS, FLYWAY ROUTES, AND BREEDING GROUND UTILIZATION Populations Canada Geese Illinois	W-95-R-3	5	24.9	8507	8606	025
Wetlands/Riparian	STATEWIDE GAME MANAGEMENT SURVEY Migration Canada Geese Arizona	W-53-R-36	3-7	7.3	8507	8606	009
Wetlands/Riparian	ECOLOGY OF CANADA GEESE¦ SOUTHERN ILLINOIS WINTERING GROUNDS, FLYWAY ROUTES, AND BREEDING GROUND UTILIZATION Migration Canada Geese Illinois	W-95-R-3	2	19.9	8507	8606	020
Wetlands/Riparian	ECOLOGY OF CANADA GEESE¦ SOUTHERN ILLINOIS WINTERING GROUNDS, FLYWAY ROUTES, AND BREEDING GROUND UTILIZATION Harvest Canada Geese Illinois	W-95-R-3	3	5.0	8507	8606	022
Wetlands/Riparian	ECOLOGY OF CANADA GEESE¦ SOUTHERN ILLINOIS WINTERING GROUNDS, FLYWAY ROUTES, AND BREEDING GROUND UTILIZATION Migration Canada Geese Illinois	W-95-R-3	4	10.0	8507	8606	023
Wetlands/Riparian	ECOLOGY OF CANADA GEESE¦ SOUTHERN ILLINOIS WINTERING GROUNDS, FLYWAY ROUTES, AND BREEDING GROUND UTILIZATION Planning Canada Geese Illinois	W-95-R-3	6	14.9	8507	8606	024
Wetlands/Riparian	WILDLIFE MODULAR PLAN OPTION Populations Canada Geese Maryland	WEP-100-2	409931	59.4	8507	8606	028
Wetlands/Riparian	COOPERATIVE WATERFOWL PROJECT Research techniques Puddle Ducks/Canada Geese Massachusetts	W-40-R-21	I	3.0	8501	8512	008
Wetlands/Riparian	MASSACHUSETTS WATERFOWL RES. PROJECT Migration Canada Geese Massachusetts	W-42-R-19	XVIII	12.0	8504	8603	016

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Wetlands/Riparian	GAME BIRD STUDIES Migration Canada Geese New Mexico	W-104-R-26	WP10-J9	7.0	8501	8512	008
Wetlands/Riparian	MIGRATORY BIRD STUDY Stocking Canada Geese Oklahoma	W-32-R-36	7-1	46.0	8507	8606	005
Wetlands/Riparian	WATERFOWL INVESTIGATIONS - CANADA GEESE STUDY Life history Canada Geese Vermont	W-33-R-24	III	20.3	8507	8606	002
Wetlands/Riparian	STATEWIDE WILDLIFE RESEARCH Research techniques Canada Geese West Virginia	W-48-R-2	VIII	4.5	8507	8606	012

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
	STATEWIDE WILDLIFE RESEARCH Reproduction aid Ducks/Pheasant/Grasses	W-141-R-21	127	15.5	8507	8606	
		Wisconsin					025
Agricultural Land	STATEWIDE WILDLIFE RESEARCH Habitats Cottontail/Ducks/Pheasant	W-141-R-21	129	16.4	8507	8606	
		Wisconsin					012
Cropland and Pasture	STATEWIDE WILDLIFE RESEARCH Reproduction aid Ducks/Pheasant	W-141-R-21	126	9.2	8507	8606	
		Wisconsin					026
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Populations Ducks/Pheasant	W-141-R-21	316	93.7	8507	8606	
		Wisconsin					029
Herbaceous Range	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Plant control Ducks/Grouse/Upland Game	W-67-R-26	B-XVIII	22.5	8507	8606	
		North Dakota					029
Ponds (40 Acres or Less)	VIRGIN ISLANDS FISH AND WILDLIFE PROGRAM Populations Ducks	FW-4-1	IC	6.4	8510	8609	
		Virgin Islands					007
Wetlands/Riparian	STATEWIDE RESEARCH PROJECT Basic survey Ducks	W-56-26	VA-2	10.5	8510	8609	
		Arkansas					005
Wetlands/Riparian	STATEWIDE WILDLIFE SURVEYS Management techniques Ducks	W-47-8	I	33.6	8507	8606	
		Georgia					005
Wetlands/Riparian	MIGRATORY BIRD STUDY Heavy metals Ducks	W-32-R-36	5-1	14.2	8507	8606	
		Oklahoma					002
Wetlands/Riparian	STATEWIDE WILDLIFE RESEARCH Mortality Ducks/Predators/Aquatic Plants	W-141-R-21	313	5.6	8507	8606	
		Wisconsin					009

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Wetlands/Riparian	STATEWIDE WILDLIFE RESEARCH Reproduction Ducks Wisconsin	W-141-R-21	317	1.0	8507	8606	017
Wetlands/Riparian	STATEWIDE WILDLIFE RESEARCH Reproduction Ducks Wisconsin	W-141-R-21	318	30.8	8507	8606	018

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
	COOPERATIVE WATERFOWL PROJECT Research techniques Puddle Ducks/Canada Geese	W-40-R-21	I	3.0	8501	8512	
		Massachusetts					009
Agricultural Land	STATEWIDE WILDLIFE RESEARCH Mortality Puddle Ducks	W-141-R-21	121	0.2	8507	8606	
		Wisconsin					008
Cropland and Pasture	AVIAN RESEARCH Food habits Puddle Ducks	FW-26-P-4	WP1 J06	9.8	8507	8606	
		Colorado					017
Cropland and Pasture	AVIAN RESEARCH Life history Puddle Ducks	FW-26-P-4	WP1-J17	13.4	8507	8606	
		Colorado					035
Non-Forested (Marsh) /Everglades	AVIAN RESEARCH Anatomy & physiology Puddle Ducks	FW-26-P-4	WP 1 J 1	33.6	8507	8606	
		Colorado					012
Non-Forested (Marsh) /Everglades	AVIAN RESEARCH Anatomy & physiology Puddle Ducks	FW-26-P-4	WP1-J15	13.0	8507	8606	
		Colorado					027
Non-Forested (Marsh) /Everglades	AVIAN RESEARCH Anatomy & physiology Puddle Ducks	FW-26-P-4	WP1-J18	6.3	8507	8606	
		Colorado					031
Reservoirs (Over 40 Acres)	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Plant production Puddle Ducks	W-13-R-40	84	18.0	8507	8606	
		Missouri					030
Wetlands/Riparian	AVIAN RESEARCH Harvest Puddle Ducks	FW-26-P-4	WP 3 J 1	11.3	8507	8506	
		Colorado					011
Wetlands/Riparian	STATEWIDE WILDLIFE RESEARCH Heavy metals Puddle Ducks	W-41-32	XX	7.0	8507	8606	
		Florida					013

SPECIES: PUDDLE DUCKS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Wetlands/Riparian	COOPERATIVE WATERFOWL PROJECT Research techniques Puddle Ducks/Canada Geese Massachusetts	W-40-R-21	I	3.0	8501	8512	008
Wetlands/Riparian	MASSACHUSETTS WATERFOWL RESEARCH PROGRAM - COASTAL AND INLAND Management techniques Puddle Ducks/Tree Ducks Massachusetts	W-42-R-19	II	38.0	8504	8603	013
Wetlands/Riparian	GAME BIRD STUDIES Basic survey Puddle Ducks New Mexico	W-104-R-26	WP10-J5	10.9	8501	8512	009

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Reservoirs (Over 40 Acres)	STATEWIDE WILDLIFE INVESTIGATIONS Reproduction aid Tree Ducks Georgia	W-37-25	W-II	4.3	8507	8606	004
Wetlands/Riparian	COOPERATIVE WILDLIFE PROJECTS Behavior Tree Ducks Alabama	W-44-11	XI	23.3	8510	8609	008
Wetlands/Riparian	COOPERATIVE WILDLIFE PROJECTS Reproduction Tree Ducks Alabama	W-44-11	XIII	6.0	8510	8609	012
Wetlands/Riparian	STATEWIDE WILDLIFE RESEARCH Diseases & parasites Tree Ducks Florida	W-41-33	XIX	17.3	8507	8606	014
Wetlands/Riparian	STATEWIDE WILDLIFE SURVEYS Reproduction Tree Ducks Georgia	W-47-8	XIII	7.0	8507	8606	018
Wetlands/Riparian	MASSACHUSETTS WATERFOWL RESEARCH PROGRAM - WOOD DUCK POPULATION STUDY Reproduction aid Tree Ducks Massachusetts	W-42-R-19	IV	13.0	8504	8603	012
Wetlands/Riparian	MASSACHUSETTS WATERFOWL RESEARCH PROGRAM - COASTAL AND INLAND Management techniques Puddle Ducks/Tree Ducks Massachusetts	W-42-R-19	II	38.0	8504	8603	013
Wetlands/Riparian	WETLAND WILDLIFE RESEARCH Harvest Tree Ducks Ohio	W-104-R-27	3	6.3	8507	8606	004
Wetlands/Riparian	TEXAS WATERFOWL Research techniques Tree Ducks Texas	W-106-R-13	8	82.5	8510	8609	010
Wetlands/Riparian	TEXAS WATERFOWL Reproduction Tree Ducks Texas	W-106-R-13	10	22.3	8510	8609	015

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
	FURBEARER RESEARCH Harvest Furbearers	W-59-R-8	VIII	4.8	8412	8511	
	New Jersey						008
Forest Land	WILDLIFE INVESTIGATIONS Populations Furbearers	W-49-R-11	VI	44.0	8509	8610	
	Connecticut						011
Forest Land	SMALL GAME FURBEARER RESEARCH - UPLAND FURBEARERS Populations Furbearers	W-69-R-16	I	153.2	8410	8509	
	Maine						016
Forest Land	SMALL GAME FURBEARER RESEARCH - UPLAND FURBEARERS Populations Furbearers	W-69-R-17	I	92.0	8510	8609	
	Maine						023
Forest Land	WILDLIFE MODULAR PLAN OPTION Populations Furbearers	WEP-100-2	409946	28.6	8507	8606	
	Maryland						020
General/Multiple Habitats	STATEWIDE GAME MANAGEMENT SURVEY Harvest Furbearers	W-53-R-36	3-6	51.5	8507	8606	
	Arizona						006
General/Multiple Habitats	STATEWIDE RESEARCH PROJECT Harvest Furbearers	W-56-26	IV-A-1	28.9	8510	8609	
	Arkansas						015
General/Multiple Habitats	WILDLIFE RESEARCH OF SURVEYS - NONGAME WILDLIFE Populations Furbearers/Badger	W-65-R-3	I	12.3	8507	8606	
	California						011
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Basic survey Furbearers	W-49-R-11	IX	20.0	8510	8609	
	Connecticut						009
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Basic survey Furbearers	W-49-R-11	VII	35.0	8510	8609	
	Connecticut						010

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS Harvest Furbearers Georgia	W-47-8	VII	2.4	8507	8606	014
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS Harvest Furbearers/Upland Game Illinois	W-49-R-SI-	15	18.3	8507	8606	008
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Harvest Furbearers Indiana	W-26-R-17	14-C	'5.3	8507	8606	013
General/Multiple Habitats	SMALL GAME FURBEARER RESEARCH - PROJECT SERVICES Management techniques Furbearers Maine	W-69-R-16	VI	92.4	8410	8509	018
General/Multiple Habitats	SMALL GAME FURBEARER RESEARCH - PROJECT SERVICES Management techniques Furbearers Maine	W-69-R-17	V	61.9	8510	8609	022
General/Multiple Habitats	WILDLIFE MODULAR PLAN OPTION Populations Furbearers Maryland	WEP-100-2	400642	11.4	8507	8606	016
General/Multiple Habitats	GAME POPULATION TREND AND HARVEST SURVEY - STATEWIDE GAME HARVEST Harvest Furbearers Massachusetts	W-35-R-28	I	53.6	8509	8606	005
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Harvest Furbearers Michigan	W-127-R-4	20	51.8	8510	8609	012
General/Multiple Habitats	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Harvest Furbearers Missouri	W-13-R-40	10	18.0	8507	8606	003
General/Multiple Habitats	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Populations Furbearers Missouri	W-13-R-40	68	9.4	8507	8606	021

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Life history Furbearers Montana	W-120-R-17	FB-2.0	19.4	8507	8606	006
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Harvest Furbearers Montana	W-120-R-17	FB-1.0	18.6	8507	8606	011
General/Multiple Habitats	STATEWIDE WILDLIFE PROGRAM Planning Furbearers Nevada	W-48-R-17	III-3	8.3	8507	8606	017
General/Multiple Habitats	STATEWIDE FURBEARER PROJECT - FURBEARER POPULATION STUDY Populations Furbearers New Hampshire	W-76-R-8	I	4.4	8507	8606	013
General/Multiple Habitats	STATEWIDE FURBEARER PROJECT - FURBEARER POPULATION STUDY Populations Furbearers New Hampshire	W-76-R-8	I	4.4	8507	8606	014
General/Multiple Habitats	STATEWIDE FURBEARER PROJECT - STATE LANDS FURBEARER MANAGEMENT Populations Furbearers New Hampshire	W-76-R-8	IV	3.0	8507	8606	015
General/Multiple Habitats	STATEWIDE FURBEARER PROJECT - ANNUAL FURBEARER HARVEST, BIOLOGICAL DATA COLLECTION AND ANALYSIS Harvest Furbearers New Hampshire	W-76-R-8	III	53.0	8507	8606	016
General/Multiple Habitats	STATEWIDE FURBEARER PROJECT - ANNUAL FURBEARER HARVEST, BIOLOGICAL DATA COLLECTION AND ANALYSIS Harvest Furbearers New Hampshire	W-76-R-8	III	53.0	8507	8606	017
General/Multiple Habitats	STATEWIDE FURBEARER PROJECT - STATE LANDS FURBEARER MANAGEMENT Populations Furbearers New Hampshire	W-76-R-8	IV	3.0	8507	8606	018
General/Multiple Habitats	WILDLIFE SURVEY AND INVENTORIES - BIOLOGICAL INVENTORIES Basic survey Black Bear/Whitetail Deer/Furbearers/Turkey New York	W-126-R-13	II	54.4	8404	8503	005

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	WILDLIFE SURVEYS AND INVENTORIES - COORDINATING FIELD INVENTORIES AND DATA COLLECTION Basic survey Black Bear/Whitetail Deer/Furbearers/Waterfowl New York	W-126-R-13	I	27.9	8404	8503	007
General/Multiple Habitats	WILDLIFE SURVEY AND INVENTORIES - BIOLOGICAL INVENTORIES Basic survey Black Bear/Whitetail Deer/Furbearers/Turkey New York	W-126-R-14	II	93.0	8504	8603	008
General/Multiple Habitats	WILDLIFE SURVEY AND INVENTORIES - COORDINATING FIELD INVENTORIES AND DATA COLLECTION Basic survey Black Bear/Whitetail Deer/Furbearers/Turkey New York	W-126-R-14	I	38.0	8504	8603	010
General/Multiple Habitats	FURBEARER MANAGEMENT INVESTIGATIONS Planning Furbearers New York	W-164-R-5	IV	16.0	8508	8603	019
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Harvest Furbearers North Dakota	W-67-R-26	E-II	13.2	8507	8606	013
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Harvest Furbearers North Dakota	W-67-R-26	E-IX	4.5	8507	8606	031
General/Multiple Habitats	WILDLIFE SURVEYS Harvest Furbearers Ohio	W-126-R(S)	5	15.3	8507	8606	014
General/Multiple Habitats	WILDLIFE SURVEYS Users Furbearers/Game Species Ohio	W-126-R(S)	11	4.5	8507	8606	018
General/Multiple Habitats	UPLAND GAME INVESTIGATIONS Harvest Furbearers Oklahoma	W-82-R-25	3-6	4.0	8507	8606	018
General/Multiple Habitats	UPLAND GAME INVESTIGATIONS Harvest	W-82-R-25	3-5	9.8	8507	8606	

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	UPLAND GAME INVESTIGATIONS Reproduction Furbearers Oklahoma	W-82-R-25	3-4	23.6	8507	8606	020
General/Multiple Habitats	UPLAND GAME INVESTIGATIONS Diseases & parasites Furbearers Oklahoma	W-82-R-25	3-3	7.3	8507	8606	021
General/Multiple Habitats	UPLAND GAME INVESTIGATIONS Harvest Furbearers Oklahoma	W-82-R-25	3-2	12.2	8507	8606	022
General/Multiple Habitats	UPLAND GAME INVESTIGATIONS Populations Furbearers Oklahoma	W-82-R-25	3-1	52.7	8507	8606	023
General/Multiple Habitats	UPLAND GAME INVESTIGATIONS Planning Small Game/Furbearers/Turkey Oklahoma	W-82-R-25	2-1	24.0	8507	8606	024
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Basic survey Furbearers Rhode Island	W-23-R-29	VIII	31.0	8504	8603	004
General/Multiple Habitats	WILDLIFE MANAGEMENT SURVEYS Harvest Furbearers South Dakota	W-95-R-20	9515	12.0	8510	8703	016
General/Multiple Habitats	FUR - BEARING ANIMAL INVESTIGATIONS Harvest Furbearers Texas	W-117-R-3	1	8.1	8507	8606	061
General/Multiple Habitats	FUR - BEARING ANIMAL INVESTIGATIONS Harvest Furbearers Texas	W-117-R-3	2	65.6	8507	8606	062
General/Multiple Habitats	FUR - BEARING ANIMAL INVESTIGATIONS Research techniques Furbearers Texas	W-117-R-3	6	3.9	8507	8606	063

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	FUR - BEARING ANIMAL INVESTIGATIONS Management techniques Furbearers Texas	W-117-R-3	5	11.7	8507	8606	064
General/Multiple Habitats	FUR - BEARING ANIMAL INVESTIGATIONS Harvest Furbearers Texas	W-117-R-3	7	38.3	8507	8606	066
General/Multiple Habitats	FURBEARER INVESTIGATIONS - DYNAMICS OF VERMONT FURBEARER POPULATIONS Populations Furbearers Vermont	W-45-R-6	I	14.3	8507	8606	016
General/Multiple Habitats	FURBEARER INVESTIGATIONS - DOMESTIC ANIMAL AND FURBEARER RELATIONSHIPS Behavior Feral Dog/Furbearers/Domestic Sheep Vermont	W-45-R-6	III	0.6	8507	8606	017
General/Multiple Habitats	FURBEARER INVESTIGATIONS - FURBEARER HABITAT ANALYSIS AND INVENTORY Habitats Furbearers Vermont	W-45-R-6	II	4.0	8507	8606	018
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Populations Furbearers Virginia	W-74-R-4	XVII	6.5	8507	8606	001
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Populations Furbearers Virginia	W-74-R-4	XVIII	32.8	8507	8606	003
Indoor Laboratory/Facility	STATEWIDE WILDLIFE INVESTIGATIONS Reproduction Furbearers Georgia	W-47-8	XVI	7.3	8507	8606	009
Indoor Laboratory/Facility	WILDLIFE HEALTH PROJECT Diseases & parasites Furbearers New Jersey	W-62-R-2	II	10.8	8505	8604	015
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE INVESTIGATIONS Populations Furbearers Alabama	W-35-33		6.7	8510	8609	006

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Mixed Hardwoods and Conifers	WILDLIFE SURVEYS Populations Furbearers	W-47-8	XIV	15.4	8507	8606	
	Georgia						010
Mixed Hardwoods and Conifers	WILDLIFE MANAGEMENT IN NORTH CAROLINA Populations Furbearers	W-57-11	C7	63.8	8510	8609	
	North Carolina						010
Salt Marsh	STATEWIDE WILDLIFE INVESTIGATIONS Populations Furbearers	W-48-33	XXII	24.0	8507	8606	
	Mississippi						008
Streams/Canals	STATEWIDE WILDLIFE SURVEYS Populations Furbearers	W-47-8	XVIII	8.3	8507	8606	
	Georgia						019
Wetlands/Riparian	WILDLIFE INVESTIGATIONS Harvest Furbearers	W-16-R-35	VII	20.5	8507	8606	
	Delaware						006
Wetlands/Riparian	WILDLIFE INVESTIGATIONS Harvest Furbearers	W-16-R-35	VII	20.5	8507	8606	
	Delaware						007
Wetlands/Riparian	STATEWIDE WILDLIFE MANAGEMENT Populations Furbearers	W-45-17	F-S-I	47.2	8507	8606	
	Kentucky						006

SPRING 1986
SPECIES: OPOSSUM

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE SURVEYS Populations Opossum	W-49-R-SI-	10	1.2	8507	8606	
	Illinois						007

CURRENT FEDERAL AID RESEARCH - WILDLIFE

SPRING 1986
SPECIES: BEAVER

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	STATEWIDE WILDLIFE SURVEYS AND INVENTORIES Populations Lynx/Bobcat/Otter/Beaver Idaho	W-170-R-10	III-	14.1	8507	8606	015
Forest Land	WILDLIFE HABITAT INVENTORY - SPECIES RANGE DELINEATION Habitats Beaver/Black Bear New York	W-163-R-8	VII	25.0	8504	8603	014
Water (Multi-Aquatic)	FURBEARER RESEARCH Populations Beaver New Jersey	W-59-R-8	IV	8.4	8412	8511	009
Water (Multi-Aquatic)	WILDLIFE HABITAT INVENTORY Habitats Beaver New York	W-163-R-8	VIII	13.0	8504	8603	016
Wetlands/Riparian	SMALL GAME FURBEARER RESEARCH - AQUATIC FURBEARERS Habitats Mink/Beaver Maine	W-69-R-16	II	0.7	8410	8509	017
Wetlands/Riparian	WILDLIFE MODULAR PLAN OPTION Populations Beaver Maryland	WEP-100-2	409947	4.5	8507	8606	042

SPRING 1986
SPECIES: CANIDS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	WILDLIFE RESEARCH OR SURVEYS - NONGAME WILDLIFE Basic survey Canids/Bobcat California	W-65-R-3	IV, V	50.7	8507	8606	008

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	STATEWIDE WILDLIFE PROGRAM Populations Bobcat/Fox	W-48-R-17	I-16	40.5	8507	8606	
	Nevada						008
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS Populations Fox	W-49-R-SI-	13	0.9	8507	8606	
	Illinois						006
General/Multiple Habitats	WILDLIFE MODULAR PLAN OPTION Harvest Fox/Raccoon	WEP-100-2	400645	5.5	8507	8606	
	Maryland						029
General/Multiple Habitats	UPLAND WILDLIFE AND FURBEARER RESEARCH Populations Raccoon/Fox/Muskrat	W-64-R-1	VI	10.9	8508	8607	
	New Jersey						024
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Migration Fox	W-67-R-26	E-VII	4.8	8507	8606	
	North Dakota						011
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Populations Fox	W-67-R-26	E-IV	10.8	8507	8606	
	North Dakota						020
General/Multiple Habitats	FUR - BEARING ANIMAL INVESTIGATIONS Populations Fox	W-117-R-3	4	19.4	8507	8606	
	Texas						065
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Populations Otter/Fox	W-48-R-2	VII	20.0	8507	8606	
	West Virginia						011
Shrub-Brushland Range	STATEWIDE WILDLIFE PROGRAM Habitats Fox	W-48-R-17	R-XIX-1	2.8	8507	8606	
	Nevada						020

SPRING 1986
SPECIES: COYOTE

CURRENT FEDERAL AID RESEARCH - WILDLIFE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Agricultural Land	FURBEARER RESEARCH Basic survey Coyote New Jersey	W-59-R-8	VI	1.6	8412	8511	012
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS Food habits Coyote Georgia	W-47-8	V	18.8	8507	8606	008
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS Populations Coyote Illinois	W-49-R-SI-	14	1.5	8507	8606	005
General/Multiple Habitats	UPLAND WILDLIFE AND FURBEARER RESEARCH Systematics Coyote New Jersey	W-64-R-1	VIII	2.1	8508	8607	021
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Food habits Whitetail Deer/Coyote North Dakota	W-67-R-26	E-VIII	10.8	8507	8606	010
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Populations Coyote North Dakota	W-67-R-26	E-VI	6.0	8507	8606	012
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Populations Coyote North Dakota	W-67-R-26	E-X	6.0	8507	8606	033
General/Multiple Habitats	FURBEARER INVESTIGATIONS - DOMESTIC ANIMAL AND FURBEARER RELATIONSHIPS Behavior Coyote Vermont	W-45-R-6	IV	30.4	8507	8606	019
Mixed Range	WILDLIFE RESEARCH COORDINATION Planning Big Game/Grouse/Coyote Oregon	W-75-C-5	1	59.3	8507	8606	002
Rangeland	NONGAME WILDLIFE INVESTIGATIONS Life history Mountain Lion/Bobcat/Coyote Texas	W-103-R-16	18	8.6	8509	8608	001

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Shrub-Brushland Range	OREGON WILDLIFE RESEARCH Habitats Coyote	W-87-R-2	I-1-4	57.5	8507	8606	
	Oregon						010

SPRING 1986
SPECIES: WOLF

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Conifers	ENDANGERED AND THREATENED SPECIES INVESTIGATINS Populations Wolf	E-1-9	101	37.8	8510	8609	
	Wisconsin						001
Forest Land	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Habitats Wolf/Blacktail Deer	W-22-5	XIVB-14.	93.1	8507	8606	
	Alaska						033
Laboratory (General)	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Basic survey Wolf/Brown Bear/Moose	W-22-4	XIVB-14.	12.4	8411	8506	
	Alaska						023
Mixed Hardwoods and Conifers	STATEWIDE ENDANGERED SPECIES RESEARCH Life history Wolf	SE-1-12	1	68.0	8507	8606	
	Montana						004
Mixed Hardwoods and Conifers	STATEWIDE ENDANGERED SPECIES RESEARCH Life history Wolf	SE-1-13	1	8.7	8507	8606	
	Montana						005

CURRENT FEDERAL AID RESEARCH - WILDLIFE

SPRING 1986
SPECIES: RACCOON

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE		PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	WILDLIFE MODULAR PLAN OPTION Harvest Fox/Raccoon	Maryland	WEP-100-2	400645	5.5	8507	8606	029
General/Multiple Habitats	UPLAND WILDLIFE AND FURBEARER RESEARCH Populations Raccoon/Fox/Muskrat	New Jersey	W-64-R-1	VI	10.9	8508	8607	024
Not Applicable	STATEWIDE WILDLIFE SURVEYS Populations Raccoon	Illinois	W-49-R-SI-	12	15.2	8507	8606	004

SPRING 1986
SPECIES: MARTEN

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE		PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Conifers	WILDLIFE RESEARCH Stocking Marten	South Dakota	W-75-R-28	7518	2.0	8507	8606	006
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE RESEARCH Populations Marten	Wisconsin	W-141-R-21	228	6.6	8507	8606	014

SPRING 1986
SPECIES: BADGER

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE		PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	WILDLIFE RESEARCH OF SURVEYS - NONGAME WILDLIFE Populations		W-65-R-3	I	12.3	8507	8606	

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	WILDLIFE RESEARCH Populations Fisher	W-160-R-13	I	17.8	8507	8606	
	Idaho						005
Mixed Hardwoods and Conifers	Populations Fisher	W-141-R-21	225	8.0	8507	8606	
	Wisconsin						019

SPRING 1986
SPECIES: FERRET

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Mixed Range	ENDANGERED WILDLIFE INVESTIGATIONS Systematics Ferret	SE-10-1		25.0	8507	8606	
	Colorado						038
Rangeland	STATEWIDE ENDANGERED SPECIES RESEARCH Systematics Ferret	SE-1-10	1	39.0	8507	8606	
	Montana						002
Rangeland	ENDANGERED WILDLIFE SURVEY Life history Ferret	SE-1-9		106.0	8507	8706	
	Wyoming						007

SPRING 1986
SPECIES: MINK

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	EVALUATION OF IMPACTS OF TOXIC SUBSTANCES ON NON-TARGET WILDLIFE General Waterfowl/Mink/Otter/All Wildlife	W-167-R-4	I	81.0	8504	8603	
	New York						023
Wetlands/Riparian	SMALL GAME FURBEARER RESEARCH - AQUATIC FURBEARERS Habitats Mink/Beaver	W-69-R-16	II	0.7	8410	8509	
	Maine						017

SPRING 1986
SPECIES: OTTER

CURRENT FEDERAL AID RESEARCH - WILDLIFE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Conifers	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Habitats Otter/Moose/Caribou Alaska	W-22-4	XIX-19.3	3.8	8504	8506	026
Forest Land	STATEWIDE WILDLIFE SURVEYS AND INVENTORIES Populations Lynx/Bobcat/Otter/Beaver Idaho	W-170-R-10	III-	14.1	8507	8606	015
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Basic survey Otter Connecticut	W-49-R-11	VIII	16.7	8510	8609	008
General/Multiple Habitats	EVALUATION OF IMPACTS OF TOXIC SUBSTANCES ON NON-TARGET WILDLIFE General Waterfowl/Mink/Otter/All Wildlife New York	W-167-R-4	I	81.0	8504	8603	023
General/Multiple Habitats	WILDLIFE INVESTIGATIONS LABORATORY Research techniques Elk/Bobcat/Black Bear/Otter Oregon	W-87-R-2	I	45.8	8509	8606	007
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Populations Otter/Fox West Virginia	W-48-R-2	VII	20.0	8507	8606	011
Streams/Canals	COMPREHENSIVE PLANNING OPTION Stocking Otter Kansas	FW-9-P-4	8044	6.8	8507	8606	004
Water (Multi-Aquatic)	STATEWIDE WILDLIFE PROGRAM Populations Otter Nevada	W-48-R-17	R-XX-1	5.2	8507	8606	021
Water (Multi-Aquatic)	FURBEARER RESEARCH Populations Otter New Jersey	W-59-R-8	V	5.3	8412	8511	010
Wetlands/Riparian	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Populations Otter Alaska	W-22-4	XIVA-19.	1.9	8407	8506	027

SPRING 1986
SPECIES: OTTER

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Wetlands/Riparian	STATEWIDE WILDLIFE RESEARCH Harvest Otter Florida	W-41-33	XXI	9.8	8507	8606	017
Wetlands/Riparian	UPLAND WILDLIFE AND FURBEARER RESEARCH Populations Otter New Jersey	W-64-R-1	VII	8.5	8508	8607	022

SPRING 1986
SPECIES: SKUNK

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS Populations Skunk Illinois	W-49-R-SI-	11	0.4	8507	8606	009

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	NONGAME WILDLIFE INVESTIGATIONS Populations Cats	W-103-R-16	12	5.1	8509	8608	
	Texas						006
Forested (Swamp)	ENDANGERED WILDLIFE Research techniques Cats	E-1-10	II-E-4	3.8	8507	8606	
	Florida						001
Forested (Swamp)	ENDANGERED WILDLIFE Behavior Cats	E-1-10	II-E-2	30.0	8507	8606	
	Florida						003
Forested (Swamp)	ENDANGERED WILDLIFE Food habits Cats	E-1-10	II-E-3	5.2	8507	8606	
	Florida						004
Forested (Swamp)	ENDANGERED WILDLIFE Populations Cats/Cervids	E-1-10	II-E-7	41.8	8507	8606	
	Florida						005
Forested (Swamp)	ENDANGERED WILDLIFE Populations Cats	E-1-10	II-E-1	30.0	8407	8506	
	Florida						006

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	WILDLIFE RESEARCH OR SURVEYS - BIG GAME INVESTIGATIONS Basic survey Mountain Lion	W-65-R-3	I-5	44.5	8507	8606	
	California						013
Forest Land	STATEWIDE WILDLIFE SURVEYS Populations Mountain Lion	W-47-8	XX	3.5	8507	8606	
	Georgia						022
Forest Land	STATEWIDE WILDLIFE PROGRAM Populations Mountain Lion	W-48-R-17	I-5	28.7	8507	8606	
	Nevada						012
Forest Land	GAME SURVEYS Harvest Mountain Lion	W-93-R-28	WP15-J2	57.5	8507	8606	
	New Mexico						031
General/Multiple Habitats	STATEWIDE RESEARCH Management techniques Mountain Lion	W-78-R-29	2-29	12.9	8503	8506	
	Arizona						016
General/Multiple Habitats	STATEWIDE RESEARCH Management techniques Mountain Lion	W-78-R-30	2-29	67.6	8507	8606	
	Arizona						027
General/Multiple Habitats	STATEWIDE RESEARCH PROJECT Populations Mountain Lion	W-56-26	VI-B-1	14.3	8510	8609	
	Arkansas						017
General/Multiple Habitats	STATEWIDE WILDLIFE MANAGEMENT, INVESTIGATION AND SURVEYS Harvest Black Bear/Mountain Lion	W-65-RD-34	A-7	7.0	8509	8608	
	Utah						022
Mixed Hardwoods and Conifers	MAMMALS II STUDIES Populations Mountain Lion	FW-26-P-4	WP 6 J 1	56.0	8507	8606	
	Colorado						005
Rangeland	STATEWIDE WILDLIFE SURVEYS AND INVENTORIES Populations Mountain Lion	W-170-R-10	I-8	4.5	8507	8606	
	Idaho						019

CURRENT FEDERAL AID RESEARCH - WILDLIFE

SPRING 1986
SPECIES: MOUNTAIN LION

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Rangeland	NONGAME WILDLIFE INVESTIGATIONS	W-103-R-16	18	8.6	8509	8608	
	Life history						
	Mountain Lion/Bobcat/Coyote						001
	Texas						
	NEW MEXICO COUGAR RESEARCH	W-128-R-1	1-1	163.8	8504	8603	
15	Populations						
	Mountain Lion						025
	New Mexico						

SPRING 1986
SPECIES: LYNX

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Conifers	ALASKA WILDLIFE RESEARCH AND MANAGEMENT	W-22-4	VII D-7.	62.1	8407	8506	
	Habitats						
	Lynx						016
	Alaska						
Conifers	ALASKA WILDLIFE RESEARCH AND MANAGEMENT	W-22-5	VIID-7.1	60.2	8507	8606	
	Habitats						
	Lynx						034
	Alaska						
Forest Land	STATEWIDE WILDLIFE SURVEYS AND INVENTORIES	W-170-R-10	III-	14.1	8507	8606	
	Populations						
	Lynx/Bobcat/Otter/Beaver						015
	Idaho						

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	WILDLIFE RESEARCH OR SURVEYS - NONGAME WILDLIFE Basic survey Canids/Bobcat	W-65-R-3	IV, V	50.7	8507	8606	
	California						008
Forest Land	STATEWIDE WILDLIFE SURVEYS AND INVENTORIES Populations Lynx/Bobcat/Otter/Beaver	W-170-R-10	III-	14.1	8507	8606	
	Idaho						015
Forest Land	WILDLIFE MODULAR PLAN OPTION Populations Bobcat	WEP-100-2	409944	8.3	8507	8606	
	Maryland						024
Forest Land	GAME POPULATION TREND AND HARVEST STUDIES Populations Bobcat	W-35-R-28	XIII	0.8	8509	8606	
	Massachusetts						006
Forest Land	STATEWIDE WILDLIFE PROGRAM Populations Bobcat/Fox	W-48-R-17	I-16	40.5	8507	8606	
	Nevada						008
Forest Land	FURBEARER RESEARCH Populations Bobcat	W-59-R-E8		2.3	8412	8511	
	New Jersey						007
Forest Land	UPLAND WILDLIFE AND FURBEARER RESEARCH Stocking Bobcat	W-64-R-1	V	1.9	8508	8607	
	New Jersey						023
Forest Land	BIG GAME RESEARCH Populations Bobcat	W-124-R-10	6-1	46.0	8508	8607	
	New Mexico						014
Forest Land	NONGAME WILDLIFE INVESTIGATIONS Populations Bobcat	W-103-R-16	17	33.0	8509	8608	
	Texas						005
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Harvest Bobcat	W-67-R-26	F-II	6.6	8507	8606	
	North Dakota						019

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	WILDLIFE INVESTIGATIONS LABORATORY Research techniques Elk/Bobcat/Black Bear/Otter	W-87-R-2	I	45.8	8509	8606	
		Oregon					007
General/Multiple Habitats	WILDLIFE MANAGEMENT SURVEYS Age & growth Bobcat	W-95-R-20	9516	2.3	8510	8703	
		South Dakota					015
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE INVESTIGATIONS Reproduction Bobcat	W-48-33	XX	25.0	8507	8606	
		Mississippi					006
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE RESEARCH Populations Bobcat	W-141-R-21	232	4.1	8507	8606	
		Wisconsin					030
Rangeland	NONGAME WILDLIFE INVESTIGATIONS Life history Mountain Lion/Bobcat/Coyote	W-103-R-16	18	8.6	8509	8608	
		Texas					001

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Agricultural Land	WILDLIFE INVESTIGATIONS Animal control Game Species	W-74-R-4	IV	24.0	8507	8606	
	Virginia						009
General/Multiple Habitats	STATEWIDE WILDLIFE INVESTIGATIONS Harvest Game Species	W-35-33	VI	16.8	8510	8609	
	Alabama						002
General/Multiple Habitats	STATEWIDE GAME MANAGEMENT SURVEY Harvest Game Species	W-53-R-36	2-1	894.1	8507	8606	
	Arizona						007
General/Multiple Habitats	STATEWIDE RESEARCH PROJECT Harvest Game Species	W-56-26	I-A-1	27.2	8510	8609	
	Arkansas						008
General/Multiple Habitats	WILDLIFE HARVEST AND ECONOMIC SURVEY Harvest Game Species	W-33-35	I	75.0	8507	8606	
	Florida						012
General/Multiple Habitats	WILDLIFE RESOURCE MANAGEMENT Basic survey Game Species	W-54-8	II	54.2	8507	8606	
	Florida						022
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS Harvest Game Species	W-47-8	VIII	2.4	8507	8606	
	Georgia						013
General/Multiple Habitats	STATEWIDE WILDLIFE MANAGEMENT Harvest Game Species	W-45-17	M-S-I	2.5	8507	8606	
	Kentucky						004
General/Multiple Habitats	WILDLIFE MODULAR PLAN OPTION Users Game Species	WEP-100-2	400680	10.1	8507	8606	
	Maryland						009
General/Multiple Habitats	STATEWIDE WILDLIFE INVESTIGATIONS Users Game Species	W-48-33	VI	32.9	8507	8606	
	Mississippi						003

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEY AND INVENTORY Management techniques Game Species	W-130-R-17		460.6	8507	8606	
		Montana					014
General/Multiple Habitats	UPLAND WILDLIFE AND FURBEARER RESEARCH Populations Game Species	W-64-R-1	III	13.5	8508	8606	
		New Jersey					018
General/Multiple Habitats	WILDLIFE MANAGEMENT IN NORTH CAROLINA Users Game Species	W-57-11	F3	9.0	8510	8609	
		North Carolina					014
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Mortality Game Species	W-67-R-26	A-II	13.8	8507	8606	
		North Dakota					018
General/Multiple Habitats	WILDLIFE SURVEYS Users Furbearers/Game Species	W-126-R(S)	11	4.5	8507	8606	
		Ohio					018
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Basic survey Game Species	W-23-R-29	VII	7.0	8504	8603	
		Rhode Island					010
General/Multiple Habitats	WILDLIFE MANAGEMENT SURVEYS Populations Game Species	W-95-R-20	9511	81.0	8510	8703	
		South Dakota					019
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Harvest Game Species	W-95-R-2	I-1	34.6	8507	8606	
		Washington					006
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE RESEARCH Habitats Game Species	W-141-R-21	124	0.5	8507	8606	
		Wisconsin					024
Not Applicable	STATEWIDE WILDLIFE SURVEYS Harvest Game Species	W-47-8	VI	20.7	8507	8606	
		Georgia					007

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Not Applicable	WILDLIFE MODULAR PLAN OPTION Management techniques Game Species	WEP-100-2	400670	13.0	8507	8606	
	Maryland						045
Not Applicable	WILDLIFE LAW ENFORCEMENT RESEARCH Harvest Game Species	W-121-R-11	1	15.1	8502	8509	
	Michigan						001
Not Applicable	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Users Game Species	W-13-R-40	90	11.3	8507	8606	
	Missouri						039

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	STATEWIDE GAME MANAGEMENT SURVEYS Diseases & parasites Big Game Arizona	W-53-R-36	3-8	4.3	8507	8606	010
General/Multiple Habitats	STATEWIDE GAME MANAGEMENT SURVEY Planning Big Game Arizona	W-53-R-36	4-3	15.9	8507	8606	015
General/Multiple Habitats	WILDLIFE RESEARCH OR SURVEYS - BIG GAME INVESTIGATIONS Basic survey Big Game California	W-65-R-3	VIII	33.4	8507	8606	017
General/Multiple Habitats	MAMMAL II STUDIES Research techniques Big Game Colorado	FW-26-P-4	WP1-J4	13.6	8507	8606	024
General/Multiple Habitats	STATEWIDE WILDLIFE MANAGEMENT, INVESTIGATIONS AND SURVEYS Populations Big Game Utah	W-65-RD-34	A-2	360.0	8509	8608	020
Laboratory (General)	ALASKA WILDLIFE RESEARCH AND MANAGEMENT - SERLOGIC SURVEYS FOR OTHER MICROBIAL PATHOGENS Diseases & parasites Diseases/Predators/Big Game Alaska	W-22-4	XVIIIA-1	49.4	8407	8506	006
Mixed Range	WILDLIFE RESEARCH COORDINATION Planning Big Game/Grouse/Coyote Oregon	W-75-C-5	1	59.3	8507	8606	002
Rangeland	STATEWIDE WILDLIFE SURVEYS AND INVENTORIES Harvest Big Game Idaho	W-170-R-10	I-10	57.8	8507	8606	013
Rangeland	STATEWIDE WILDLIFE PROGRAM Stocking Big Game Nevada	W-48-R-17	IX-1	185.3	8507	8606	016
Wetlands/Riparian	MIGRATORY BIRD STUDY Harvest Waterfowl/Big Game/Upland Birds Oklahoma	W-32-R-36	2-1	17.4	8507	8606	004

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Populations Muskox Alaska	W-22-4	XIVA-16.	19.7	8407	8506	025
Forest Land	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Life history Muskox/Moose/Caribou Alaska	W-22-5	XIXA-19.	11.1	8507	8606	050
Outdoor Laboratory - Terrestial (Pens)	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Life history Muskox Alaska	W-22-4	XIXA-19.	8.3	8407	8506	017
Outdoor Laboratory - Terrestial (Pens)	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Systematics Muskox Alaska	W-22-4	XIXA-19.	7.5	8407	8506	018
Outdoor Laboratory - Terrestial (Pens)	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Systematics Muskox Alaska	W-22-5	XIXA-19.	0.9	8507	8606	031
Outdoor Laboratory - Terrestial (Pens)	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Life history Muskox Alaska	W-22-5	XIXA-19.	2.2	8507	8606	047
Tundra	ALASKA WILDLIFE RESEARCH AND MANAGEMENT - COMPARATIVE HABITAT USE BY MUSKOXEN IN NORTHERN ALASKA Habitats Muskox Alaska	W-22-4	XIXA-19.	1.9	8407	8506	007
Tundra	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Populations Muskox Alaska	W-22-5	XVIA-16.	26.7	8507	8606	048
Tundra	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Habitats Muskox Alaska	W-22-5	XIXA-19.	0.9	8507	8606	051

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Conifers	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Populations Black Bear Alaska	W-22-4	XVIIC-17	59.3	8407	8506	019
Conifers	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Populations Black Bear Alaska	W-22-5	XVIIC-17	14.8	8507	8606	052
Forest Land	STATEWIDE INVESTIGATIONS Basic survey Black Bear Arizona	W-78-R-30	2-22	89.4	8507	8606	024
Forest Land	WILDLIFE RESEARCH OR SURVEYS - BIG GAME INVESTIGATIONS Basic survey Black Bear California	W-65-R-3	I-2	30.6	8507	8606	005
Forest Land	STATEWIDE WILDLIFE SURVEYS Populations Black Bear Georgia	W-47-8	XIX	24.2	8507	8606	020
Forest Land	BIG GAME RESEARCH - BLACK BEAR Populations Black Bear Maine	W-67-R-17	II	188.0	8510	8609	013
Forest Land	BIG GAME RESEARCH - BLACK BEAR Populations Black Bear Maine	W-67-R-17	II	158.0	8410	8509	014
Forest Land	WILDLIFE MODULAR PLAN OPTION Populations Black Bear Maryland	WEP-100-2	409998	6.1	8507	8606	006
Forest Land	GAME POPULATION TREND AND HARVEST SURVEY - BLACK BEAR STUDY Populations Black Bear Massachusetts	W-35-R-28	VI	47.6	8509	8606	001
Forest Land	BLACK BEAR STUDIES Life history Black Bear New Hampshire	W-77-R-7	I	18.2	8507	8606	019

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	BLACK BEAR STUDIES Life history Black Bear	W-77-R-7	I	18.2	8507	8606	
	New Hampshire						020
Forest Land	FURBEARER RESEARCH Basic survey Black Bear	W-59-R-8	VII	1.5	8412	8511	
	New Jersey						011
Forest Land	UPLAND WILDLIFE AND FURBEARER RESEARCH Systematics Black Bear	W-64-R-1	IX	11.4	8508	8607	
	New Jersey						020
Forest Land	WILDLIFE HABITAT INVENTORY - SPECIES RANGE DELINEATION Habitats Beaver/Black Bear	W-163-R-8	VII	25.0	8504	8603	
	New York						014
Forest Land	BIG GAME MANAGEMENT - BEAR POPULATION MANAGEMENT Basic survey Black Bear	W-89-R-30	II	6.0	8504	8603	
	New York						033
Forest Land	BIG GAME INVESTIGATIONS Basic survey Black Bear	W-109-R-9	10	1.0	8503	8602	
	Texas						035
Forest Land	BLACK BEAR INVESTIGATIONS - VERMONT BLACK BEAR RESEARCH Basic survey Black Bear	W-38-R-18	I	20.0	8507	8606	
	Vermont						014
Forest Land	BLACK BEAR INVESTIGATIONS - DISSEMINATION OF BLACK BEAR PROJECT RESULTS Management techniques Black Bear	W-38-R-18	II	20.0	8507	8606	
	Vermont						015
Forest Land	STATEWIDE WILDLIFE - BLACK BEAR RESEARCH Life history Black Bear	W-48-R-2	VI	78.0	8507	8606	
	West Virginia						010
Forested (Swamp)	COOPERATIVE WILDLIFE PROJECTS Populations Black Bear	W-44-11	XIV	38.6	8510	8609	
	Alabama						011

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE		PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	STATEWIDE RESEARCH PROJECT Harvest Black Bear	Arkansas	W-56-26		18.2	8510	8609	007
General/Multiple Habitats	WILDLIFE SURVEY AND INVENTORIES - BIOLOGICAL INVENTORIES Basic survey Black Bear/Whitetail Deer/Furbearers/Turkey	New York	W-126-R-13	II	54.4	8404	8503	005
General/Multiple Habitats	WILDLIFE SURVEYS AND INVENTORIES - COORDINATING FIELD INVENTORIES AND DATA COLLECTION Basic survey Black Bear/Whitetail Deer/Furbearers/Waterfowl	New York	W-126-R-13	I	27.9	8404	8503	007
General/Multiple Habitats	WILDLIFE SURVEY AND INVENTORIES - BIOLOGICAL INVENTORIES Basic survey Black Bear/Whitetail Deer/Furbearers/Turkey	New York	W-126-R-14	II	93.0	8504	8603	008
General/Multiple Habitats	WILDLIFE SURVEY AND INVENTORIES - COORDINATING FIELD INVENTORIES AND DATA COLLECTION Basic survey Black Bear/Whitetail Deer/Furbearers/Turkey	New York	W-126-R-14	I	38.0	8504	8603	010
General/Multiple Habitats	WILDLIFE INVESTIGATIONS LABORATORY Research techniques Elk/Bobcat/Black Bear/Otter	Oregon	W-87-R-2	I	45.8	8509	8606	007
General/Multiple Habitats	STATEWIDE WILDLIFE MANAGEMENT, INVESTIGATION AND SURVEYS Harvest Black Bear/Mountain Lion	Utah	W-65-RD-34	A-7	7.0	8509	8608	022
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Populations Black Bear	Virginia	W-74-R-4	I	18.5	8507	8606	005
Mixed Hardwoods and Conifers	MAMMALS II STUDIES Research techniques Black Bear	Colorado	FW-26-P-4	WP 5 J 1	32.8	8507	8606	008
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE RESEARCH Life history Black Bear	Florida	W-41-33	XXVI	37.0	8507	8606	016

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE RESEARCH Life history Black Bear Florida	W-41-33	XXVII	6.1	8507	8606	019
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE RESEARCH Life history Black Bear Florida	W-41-33	XXVII	8.1	8507	8606	020
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE RESEARCH Research techniques Black Bear Michigan	W-127-R-4	127-51	15.0	8510	8609	005
Mixed Hardwoods and Conifers	BEARTOOTH FACE BLACK BEAR STUDY Behavior Black Bear Montana	W-144-R		8.6	8503	8506	016
Mixed Hardwoods and Conifers	BEARTOOTH FACE BLACK BEAR STUDY Behavior Black Bear Montana	W-144-R-2	BFBBS 1.	16.8	8507	8606	017
Mixed Hardwoods and Conifers	YAAK BLACK BEAR STUDY Populations Black Bear Montana	W-145-R-1	YBBS-1.0	8.4	8507	8606	018
Mixed Hardwoods and Conifers	GAME SURVEYS Harvest Black Bear New Mexico	W-93-R-28	WP 18 -	36.3	8507	8606	038
Mixed Hardwoods and Conifers	WILDLIFE MANAGEMENT IN NORTH CAROLINA Systematics Black Bear North Carolina	W-57-11	B1	27.5	8510	8609	005
Mixed Hardwoods and Conifers	WILDLIFE MANAGEMENT IN NORTH CAROLINA Populations Black Bear North Carolina	W-57-11	B2	21.8	8510	8609	007
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE RESEARCH Populations Black Bear Wisconsin	W-141-R-21	222	6.3	8507	8606	028

CURRENT FEDERAL AID RESEARCH - WILDLIFE

SPRING 1986
SPECIES: BLACK BEAR

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE		PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Rangeland	STATEWIDE WILDLIFE SURVEYS AND INVENTORIES		W-170-R-10	I-9	8.4	8507	8606	
	Populations							
	Black Bear	Idaho						018

SPRING 1986
SPECIES: BROWN BEAR

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE		PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Conifers	ALASKA WILDLIFE RESEARCH AND MANAGEMENT - BROWN BEAR HABITAT PREFERENCES AND BROWN BEAR LOGGING RELATIONSHIPS IN SOUTHEAST ALASKA		W-22-4	IVF-4.17	113.4	8407	8506	
	Life history							
	Brown Bear	Alaska						010
Conifers	ALASKA WILDLIFE RESEARCH AND MANAGEMENT		W-22-5	IVF-4.17	125.2	8507	8606	
	Life history							
	Brown Bear	Alaska						046
Laboratory (General)	ALASKA WILDLIFE RESEARCH AND MANAGEMENT		W-22-4	XIVB-14.	12.4	8411	8506	
	Basic survey							
	Wolf/Brown Bear/Moose	Alaska						023

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Conifers	ENDANGERED SPECIES RESEARCH AND INVENTORY (COOPERATIVE STUDY BETWEEN WASHINGTON AND IDAHO) Management techniques Caribou/Grizzly Bear Idaho	E-3	E-3-1	86.0	8503	8602	001
Conifers	ENDANGERED SPECIES RESEARCH AND INVENTORY Management techniques Grizzly Bear Idaho	E-3	E-3-2	15.0	8503	8602	003
Conifers	ENDANGERED SPECIES RESEARCH AND INVENTORY Basic survey Grizzly Bear Idaho	E-4	1,2,3	30.0	8503	8602	004
Conifers	SELKIRK GRIZZLY BEAR RESEARCH Life history Grizzly Bear Washington	E-1	2	36.9	8504	8509	001
Conifers	SELKIRK GRIZZLY BEAR RESEARCH (IN COOPERATION WITH THE IDAHO DEPARTMENT OF FISH & GAME) Habitats Grizzly Bear Washington	E-1-	E-1-8	36.9	8504	8509	002
Forest Land	ENDANGERED WILDLIFE SURVEY Life history Grizzly Bear Wyoming	SE-1-10	Job 1	45.0	8507	8606	004
Tundra	ALASKA WILDLIFE RESEARCH AND MANAGEMENT - POPULATION STRUCTURE, REPRODUCTIVE BIOLOGY, AND MOVEMENT PATTERNS OF GRIZZLY BEARS IN THE NORTHERN ALASKA RANGE (ABBREV) Populations Grizzly Bear Alaska	W-22-4	IVE-4.16	95.7	8407	8506	011
Tundra	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Populations Grizzly Bear Alaska	W-22-5	IVE-4.18	96.7	8507	8606	042

SPRING 1986
SPECIES: PECCARIES

CURRENT FEDERAL AID RESEARCH - WILDLIFE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Rangeland	STATEWIDE GAME MANAGEMENT SURVEY Stocking Peccaries Arizona	W-53-R-36	6-3	4.2	8507	8606	005
Rangeland	GAME SURVEYS Harvest Peccaries New Mexico	W-93-R-28	WP12-J1	18.8	8507	8606	030
Rangeland	BIG GAME INVESTIGATIONS Harvest Peccaries Texas	W-109-R-9	35	8.0	8503	8602	028
Rangeland	BIG GAME INVESTIGATIONS Harvest Peccaries Texas	W-109-R-9	7	5.0	8503	8602	033

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
	WILDLIFE SURVEYS AND INVENTORIES Research techniques Cervids	W-170-R-10	V	23.0	8507	8606	
	Idaho						010
Forest Land	WILDLIFE RESEARCH OR SURVEYS - BIG GAME INVESTIGATIONS Behavior Cervids	W-65-R-3	VII	15.2	8507	8606	
	California						014
Forest Land	WILDLIFE RESEARCH OR SURVEYS - BIG GAME INVESTIGATIONS Planning Cervids	W-65-R-3	V	116.1	8507	8606	
	California						016
Forest Land	FISH AND WILDLIFE INVESTIGATIONS Basic survey Cervids	FW-2-R-23	W-1-1	11.0	8510	8609	
	Guam						002
Forest Land	STATEWIDE GAME RESEARCH SURVEYS AND INVENTORIES Populations Cervids/Bovids	W-17-R-11	II	26.6	8507	8606	
	Hawaii						002
Forest Land	WILDLIFE SURVEYS AND INVENTORIES Basic survey Bats/Cervids/Feral Animals	W-1-R-4	I	28.0	8510	8609	
	No. Mariana Isles						004
Forest Land	BIG GAME INVESTIGATIONS Not applicable Cervids	W-80-R-25	1-5	9.0	8507	8606	
	Oklahoma						013
Forest Land	BIG GAME INVESTIGATIONS Harvest Cervids/Turkey	W-80-R-25	1-4	164.0	8507	8606	
	Oklahoma						014
Forest Land	BIG GAME INVESTIGATIONS Reproduction Cervids	W-109-R-9	20	10.0	8503	8602	
	Texas						034
Forest Land	STATEWIDE WILDLIFE RESEARCH Harvest Cervids	W-93-R-4	I-1; II-	70.7	8507	8606	
	Washington						004

CURRENT FEDERAL AID RESEARCH - WILDLIFE

SPRING 1986
SPECIES: CERVIDS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE		PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	STATEWIDE WILDLIFE RESEARCH Food habits Cervids	Washington	W-95-R-2	III-3	5.9	8507	8606	011
Forested (Swamp)	ENDANGERED WILDLIFE Populations Cats/Cervids	Florida	E-1-10	II-E-7	41.8	8507	8606	005
General/Multiple Habitats	COOPERATIVE FOREST WILDLIFE RESEARCH Populations Cervids	Illinois	W-87-R-7	VII-A-10	29.8	8507	8606	019
General/Multiple Habitats	COMPREHENSIVE MANAGEMENT Diseases & parasites Cervids	Wyoming	FW-17-P-4	CAA	127.5	8507	8606	001
Herbaceous Range	STATEWIDE WILDLIFE RESEARCH Food habits Cervids/Pronghorn/Upland Birds/Domestic Cattle	Montana	W-120-R-17	BG 11.0	28.0	8507	8606	010
Rangeland	GAME SURVEYS Harvest Cervids	New Mexico	W-93-R-28	WP17-J1	20.0	8507	8606	033
Rangeland	BIG GAME INVESTIGATIONS Food habits Cervids/Turkey	Oklahoma	W-80-R-25	1-3	5.6	8507	8606	009
Shrub-Brushland Range	GAME RANGE RESTORATION STUDIES Plant production Hare/Rabbit/Pika/Cervids/Domestic Cattle	Utah	W-82-R-31	VII	9.0	8504	8603	029
Shrub-Brushland Range	GAME RANGE RESTORATION STUDIES Plant production Cervids/Shrubs	Utah	W-82-R-31	V	20.6	8504	8603	031

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Conifers	ALASKA WILDLIFE RESEARCH AND MANAGEMENT - IMPACT OF WILDLIFE ON HOME RANGE OF MOOSE Habitats Moose	W-22-4	IE-1.32	7.5	8407	8506	
	Alaska						003
Conifers	ALASKA WILDLIFE RESEARCH AND MANAGEMENT - MOOSE NUTRITION AND PHYSIOLOGY STUDIES Anatomy & physiology Moose	W-22-4	IA-1.28	113.5	8407	8506	
	Alaska						005
Conifers	ALASKA WILDLIFE RESEARCH AND MANAGEMENT - FACTORS LIMITING MOOSE POPULATION GROWTH IN GAME MANAGEMENT UNIT 20E Populations Moose	W-22-4	IG-1.37	146.9	8407	8506	
	Alaska						022
Conifers	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Habitats Otter/Moose/Caribou	W-22-4	XIX-19.3	3.8	8504	8506	
	Alaska						026
Conifers	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Anatomy & physiology Moose	W-22-5	IA-1.28	104.9	8507	8606	
	Alaska						039
Conifers	STATEWIDE WILDLIFE RESEARCH Stocking Moose	W-127-R-4	35	32.3	8510	8609	
	Michigan						015
Forest Land	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Life history Muskox/Moose/Caribou	W-22-5	XIXA-19.	11.1	8507	8606	
	Alaska						050
General/Multiple Habitats	BIG GAME MANAGEMENT/RESEARCH - MOOSE STUDY Harvest Moose	W-12-R-39	XII	10.0	8507	8606	
	New Hampshire						007
Laboratory (General)	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Basic survey Wolf/Brown Bear/Moose	W-22-4	XIVB-14.	12.4	8411	8506	
	Alaska						023
Mixed Hardwoods and Conifers	MOOSE ECOLOGY STUDIES Habitats Moose	W-143-R-3	MEL-1.0	4.3	8501	8606	
	Montana						015

SPRING 1986
SPECIES: MOOSE

CURRENT FEDERAL AID RESEARCH - WILDLIFE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Populations Moose/Elk North Dakota	W-67-R-26	C-VI	7.8	8507	8606	005
Outdoor Laboratory - Terrestial (Pens)	ALASKA WILDLIFE RESEARCH AND MANAGEMENT - EVALUATION AND TESTING OF TECHNIQUES FOR MOOSE MANAGEMENT Research techniques Moose Alaska	W-22-4	IE-1.31	29.5	8407	8506	004
Outdoor Laboratory - Terrestial (Pens)	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Reproduction Moose Alaska	W-22-5	IG-1.37	167.5	8507	8606	044
Outdoor Laboratory - Terrestial (Pens)	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Research techniques Moose Alaska	W-22-5	IE-1.31	31.0	8507	8606	045
Rangeland	STATEWIDE WILDLIFE SURVEYS AND INVENTORIES Populations Moose Idaho	W-170-R-10	I-6	10.7	8507	8606	021
Wetlands/Riparian	BIG GAME RESEARCH - MOOSE STUDY Populations Moose Maine	W-67-R-16	III	157.8	8410	8509	011
Wetlands/Riparian	BIG GAME RESEARCH - MOOSE STUDY Populations Moose Maine	W-67-R-17	III	158.0	8510	8609	012
Wetlands/Riparian	WILD CERVID STUDY Populations Moose Vermont	W-34-R-23	V	22.0	8507	8606	008

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
	BIG GAME-LIVESTOCK RELATIONSHIP STUDY Food habits Mule Deer/Elk	W-105-R-21	A-5g	4.0	8403	8502	
	Utah						006
Conifers	STATEWIDE INVESTIGATIONS Migration Elk	W-78-R-30	2-28	120.0	8511	8606	
	Arizona						031
Conifers	MAMMALS I, DEER, ELK, AND MOOSE Populations Elk	FW-26-P-4	Work Pla	18.1	8507	8606	
	Colorado						033
Conifers	GAME SURVEYS Harvest Elk	W-43-R-28	WP 3, J8	40.0	8507	8606	
	New Mexico						026
Cropland and Pasture	BIG GAME-LIVESTOCK RELATIONSHIP STUDY Food habits Mule Deer/Elk	W-105-R-22	A-5g	10.3	8503	8602	
	Utah						008
Cropland and Pasture	BIG GAME - LIVESTOCK RELATIONSHIPS STUDY Food habits Elk/Mule Deer	W-105-R-22	A-5f	8.2	8503	8602	
	Utah						012
Forest Land	STATEWIDE INVESTIGATIONS Plant production Elk	W-78-R-29	4-22	18.9	8503	8606	
	Arizona						017
Forest Land	STATEWIDE INVESTIGATIONS Plant production Elk	W-78-R-30	4-22	12.1	8507	8606	
	Arizona						030
Forest Land	WILDLIFE RESEARCH OR SURVEYS - BIG GAME INVESTIGATIONS Basic survey Elk	W-65-R-3	I-3	25.2	8507	8606	
	California						004
Forest Land	WILDLIFE RESEARCH Habitats Elk	W-160-R-13	I, II, I	79.2	8507	8606	
	Idaho						009

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HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	STATEWIDE WILDLIFE SURVEYS AND INVENTORIES Populations Elk	W-170-R-10	I-1	90.4	8507	8606	
	Idaho						014
Forest Land	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Harvest Elk	W-170-R-10	I-11	12.8	8507	8606	
	Idaho						025
Forest Land	STATEWIDE WILDLIFE RESEARCH Oil Elk	W-127-R-4	30	6.0	8510	8609	
	Michigan						013
Forest Land	STATEWIDE WILDLIFE PROGRAM Populations Elk	W-48-R-17	I-4	20.6	8507	8606	
	Nevada						013
Forest Land	BIG GAME RESEARCH Diseases & parasites Elk	W-124-R-10	3-4	8.0	8508	8607	
	New Mexico						018
Forest Land	BIG GAME RESEARCH Management techniques Elk	W-124-R-10	3-3	38.0	8508	8607	
	New Mexico						019
Forest Land	BIG GAME RESEARCH Anatomy & physiology Elk	W-124-R-10	1-2&3	22.0	8508	8607	
	New Mexico						020
Forest Land	GAME SURVEYS Harvest Elk	W-93-R-28	WP3-J7	83.7	8507	8606	
	New Mexico						036
Forest Land	BIG GAME INVESTIGATIONS Not applicable Whitetail Deer/Elk/Turkey	W-80-R-25	4-1	44.7	8507	8606	
	Oklahoma						011
Forest Land	OREGON WILDLIFE RESEARCH Habitats Elk	W-87-R-2	I, II	39.1	8507	8606	
	Oregon						003

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	OREGON WILDLIFE RESEARCH Migration Elk	W-87-R-2	III 1-4	10.6	8507	8606	
	Oregon						004
Forest Land	OREGON WILDLIFE RESEARCH Habitats Elk	W-87-R-2	II	70.6	8507	8606	
	Oregon						006
Forest Land	OREGON WILDLIFE RESEARCH Migration Elk	W-87-R-2	I-1-2; I	11.0	8507	8606	
	Oregon						009
Forest Land	BIG GAME INVESTIGATIONS Harvest Elk	W-109-R-9	9	2.0	8503	8602	
	Texas						031
General/Multiple Habitats	WILDLIFE INVESTIGATIONS LABORATORY Research techniques Elk/Bobcat/Black Bear/Otter	W-87-R-2	I	45.8	8509	8606	
	Oregon						007
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE RESEARCH Reproduction Elk	W-120-R-17	BG-3.0	85.0	8507	8606	
	Montana						009
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Populations Moose/Elk	W-67-R-26	C-VI	7.8	8507	8606	
	North Dakota						005
Mixed Hardwoods and Conifers	WILDLIFE MANAGEMENT SURVEYS Populations Elk	W-95-R-20	9517	13.5	8510	8703	
	South Dakota						018
Mixed Range	MAMMALS I - DEER, ELK, AND MOOSE Populations Elk	FW-26-P-4	WP3-J2	61.5	8507	8606	
	Colorado						025
Mixed Range	OREGON WILDLIFE PROGRAM Habitats Elk	W-87-R-2	II-2	28.0	8507	8606	
	Oregon						005

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Mixed Range	WILDLIFE RESEARCH Habitats Elk	W-75-R-28	7524	7.5	8507	8606	
	South Dakota						001
Mixed Range	GAME RANGE RESTORATION STUDIES Plant production Elk/Mule Deer	W-82-R-31	I	33.8	8504	8603	
	Utah						028
Rangeland	MAMMALS I. DEER, ELK, AND MOOSE Food habits Elk	FW-26-P-4	Work Pla	52.5	8507	8606	
	Colorado						030

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
	BIG GAME-LIVESTOCK RELATIONSHIP STUDY Food habits Mule Deer/Elk	W-105-R-21	A-5g	4.0	8403	8502	
		Utah					006
Barren Land	BIG GAME INVESTIGATIONS Animal control Mule Deer	W-109-R-9	50	20.0	8503	8602	
		Texas					029
Conifers	MAMMALS I - DEER, ELK, AND MOOSE Populations Mule Deer	FW-26-P-4	WP2-J14	18.7	8507	8606	
		Colorado					029
Cropland and Pasture	BIG GAME-LIVESTOCK RELATIONSHIP STUDY Food habits Mule Deer/Elk	W-105-R-22	A-5g	10.3	8503	8602	
		Utah					008
Cropland and Pasture	BIG GAME - LIVESTOCK RELATIONSHIPS STUDY Food habits Elk/Mule Deer	W-105-R-22	A-5f	8.2	8503	8602	
		Utah					012
Desert Shrub	STATEWIDE INVESTIGATIONS Populations Mule Deer	W-78-R-30	2-27	93.0	8507	8606	
		Arizona					025
Forest Land	STATEWIDE WILDLIFE PROGRAM Behavior Mule Deer	W-48-R-17	RI-1	33.5	8507	8606	
		Nevada					022
Forest Land	STATEWIDE WILDLIFE PROGRAM Planning Mule Deer	W-48-R-17	XIII-1	64.2	8507	8606	
		Nevada					024
Forest Land	BIG GAME RESEARCH Research techniques Mule Deer	W-124-R-10	5-1	110.0	8508	8607	
		New Mexico					012
Forest Land	BIG GAME RESEARCH Research techniques Mule Deer	W-124-R-10	5-4	85.0	8508	8607	
		New Mexico					015

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SPECIES: MULE DEER

CURRENT FEDERAL AID RESEARCH - WILDLIFE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	BIG GAME RESEARCH Harvest Mule Deer	W-124-R-10	5-3	160.0	8508	8607	
	New Mexico						016
Forest Land	BIG GAME RESEARCH Populations Mule Deer	W-124-R-10	5-2	86.0	8508	8507	
	New Mexico						017
Forest Land	GAME SURVEYS Harvest Mule Deer/Whitetail Deer	W-93-R-28	WP2-J6	265.0	8507	8606	
	New Mexico						037
Forest Land	STATEWIDE WILDLIFE RESEARCH Migration Mule Deer	W-95-R-2	I-1-2	26.7	8507	8606	
	Washington						010
General/Multiple Habitats	STATEWIDE INVESTIGATIONS Mortality Mule Deer/Whitetail Deer	W-78-R-29	2-30	47.3	8503	8506	
	Arizona						020
General/Multiple Habitats	STATEWIDE INVESTIGATIONS Mortality Mule Deer	W-78-R-30	2-18	36.2	8507	8606	
	Arizona						021
General/Multiple Habitats	STATEWIDE INVESTIGATIONS Mortality Mule Deer	W-78-R-30	2-12	108.5	8507	8606	
	Arizona						023
General/Multiple Habitats	STATEWIDE INVESTIGATIONS Mortality Mule Deer/Whitetail Deer	W-78-R-30	2-30	60.4	8506	8606	
	Arizona						026
General/Multiple Habitats	WILDLIFE RESEARCH Research techniques Mule Deer	W-160-R-13	1-I, 1-I	92.1	8507	8606	
	Idaho						008
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Life history Mule Deer	W-120-R-17	BG-1.0	170.0	8507	8606	
	Montana						008

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	WILDLIFE SURVEYS AND INVESTIGATIONS Diseases & parasites Pronghorn/Mule Deer/Whitetail Deer	W-67-R-26	A-V	51.0	8507	8606	
	North Dakota						003
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Migration Mule Deer	W-67-R-26	C-VIII	36.0	8507	8606	
	North Dakota						004
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Populations Mule Deer/Whitetail Deer	W-67-R-26	C-I	75.0	8507	8606	
	North Dakota						006
General/Multiple Habitats	WILDLIFE MANAGEMENT SURVEYS Populations Mule Deer/Whitetail Deer	W-95-R-20	9507	113.0	8510	8703	
	South Dakota						023
General/Multiple Habitats	STATEWIDE WILDLIFE MANAGEMENT, INVESTIGATIONS AND SURVEYS Populations Mule Deer	W-65-RD-34	B-9	40.9	8509	8608	
	Utah						021
Herbaceous Range	MAMMALS I - DEER, ELK, AND MOOSE Populations Mule Deer	FW-26-P-4	WP2-J10	52.4	8507	8606	
	Colorado						026
Mixed Range	MAMMALS - I - DEER, ELK, AND MOOSE Behavior Mule Deer	FW-26-p-4	WP2-J6	40.6	8507	8606	
	Colorado						001
Mixed Range	MAMMALS I - DEER, ELK, AND MOOSE Anatomy & physiology Mule Deer	FW-26-P-4	WP2-J1	25.7	8507	8606	
	Colorado						004
Mixed Range	STATEWIDE WILDLIFE PROGRAM Systematics Mule Deer	W-48-R-17	R-I-1	33.5	8507	8606	
	Nevada						026
Mixed Range	STATEWIDE WILDLIFE PROGRAM Planning Mule Deer	W-48-R-17	III-8	3.1	8507	8606	
	Nevada						028

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CURRENT FEDERAL AID RESEARCH - WILDLIFE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Mixed Range	BIG GAME INVESTIGATIONS Anatomy & physiology Mule Deer	W-109-R-9 Texas	57	10.0	8503	8604	047
Mixed Range	BIG GAME-LIVESTOCK RELATIONSHIP STUDY Food production or provision Mule Deer/Horses	W-105-R-22 Utah	A-5e	9.8	8503	8602	007
Mixed Range	BIG GAME-LIVESTOCK RELATIONSHIP STUDY Habitats Mule Deer/Horses/Domestic Cattle	W-105-R-22 Utah	A-5c	24.0	8503	8602	009
Mixed Range	BIG GAME-LIVESTOCK RELATIONSHIPS STUDY Food habits Mule Deer	W-105-R-22 Utah	A6b	6.3	8503	8602	010
Mixed Range	STATEWIDE BIG GAME RANGE INVENTORY Habitats Mule Deer	W-135-R-6 Utah		62.3	8505	8604	018
Mixed Range	STATEWIDE BIG GAME RANGE INVENTORY Habitats Mule Deer	W-135-R-6 Utah		62.3	8505	8604	019
Mixed Range	GAME RANGE RESTORATION STUDIES Plant production Elk/Mule Deer	W-82-R-31 Utah	I	33.8	8504	8603	028
Rangeland	STATEWIDE WILDLIFE SURVEYS AND INVENTORIES Populations Mule Deer	W-170-R-10 Idaho	I-2	94.1	8507	8606	012
Rangeland	BIG GAME INVESTIGATIONS Age & growth Mule Deer	W-109-R-9 Texas	33	20.0	8503	8602	030
Rangeland	BIG GAME INVESTIGATIONS Harvest Mule Deer	W-109-R-9 Texas	5	70.0	8503	8602	042

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Rangeland	BIG GAME INVESTIGATIONS Reproduction Mule Deer	W-109-R-9	51	42.0	8503	8602	
	Texas						045
Rangeland	BIG GAME INVESTIGATIONS Age & growth Mule Deer	W-109-R-9	53	20.0	8503	8602	
	Texas						049
Rangeland	BIG GAME INVESTIGATIONS Populations Mule Deer	W-109-R-9	54	18.0	8503	8602	
	Texas						051
Shrub-Brushland Range	MAMMALS I - DEER, ELK, AND MOOSE Research techniques Mule Deer	FW-26-P-4	WP2-J11	26.6	8507	8606	
	Colorado						028
Shrub-Brushland Range	STATEWIDE WILDLIFE PROGRAM Populations Mule Deer	W-48-R-17	I-1	163.6	8507	8606	
	Nevada						005
Shrub-Brushland Range	BIG GAME-LIVESTOCK RELATIONSHIPS STUDY Food production or provision Mule Deer	W-105-R-22	A6a	9.4	8503	8602	
	Utah						011

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	ALASKA WILDLIFE RESEARCH AND MANAGEMENT - SEASONAL DISTRIBUTION AND HABITAT USE BY SITKA BLACK-TAILED DEER IN SOUTHEASTERN ALASKA Life history Blacktail Deer Alaska	W-22-4	IIB-2.6	19.0	8407	8506	002
Forest Land	ALASKA WILDLIFE RESEARCH AND MANAGEMENT - SEASONAL HABITAT USE PATTERNS OF DEER INHABITING ISLANDS OF PRINCE WILLIAM SOUND Habitats Blacktail Deer Alaska	W-22-4	XIXA-19.	0.8	8407	8506	008
Forest Land	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Populations Blacktail Deer Alaska	W-22-4	IIB-2.8	62.3	8411	8506	021
Forest Land	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Populations Blacktail Deer Alaska	W-22-5	XIVB-14.	9.8	8507	8606	032
Forest Land	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Habitats Wolf/Blacktail Deer Alaska	W-22-5	XIVB-14.	93.1	8507	8606	033
Forest Land	WILDLIFE RESEARCH OR SURVEYS - BIG GAME INVESTIGATIONS Planning Blacktail Deer California	W-65-R-3	I-1	76.8	8507	8606	012
Tundra	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Reproduction Blacktail Deer Alaska	W-22-5	IIB-2.8	25.5	8507	8606	041

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Agricultural Land	WILDLIFE INVESTIGATIONS Harvest Whitetail Deer/Waterfowl/Cottontail/Quail Delaware	W-16-R-35	I	84.0	8507	8606	003
Agricultural Land	WILDLIFE INVESTIGATIONS Harvest Whitetail Deer/Waterfowl/Cottontail/Quail Delaware	W-16-R-35	I	84.0	8507	8606	008
Agricultural Land	STATEWIDE WILDLIFE RESEARCH Harvest Whitetail Deer Michigan	W-127-R-4	3	90.0	8510	8609	010
Forest Land	STATEWIDE WILDLIFE SURVEYS Management techniques Whitetail Deer Georgia	W-47-8	XVII	4.6	8507	8606	017
Forest Land	BIG GAME MANAGEMENT RESEARCH - DEER STUDIES IN SOUTHERN NEW HAMPSHIRE Habitats Whitetail Deer New Hampshire	W-12-R-39	IX	10.0	8507	8606	005
Forest Land	GAME SURVEYS Harvest Mule Deer/Whitetail Deer New Mexico	W-93-R-28	WP2-J6	265.0	8507	8606	037
Forest Land	DEER HEALTH STUDY Anatomy & physiology Whitetail Deer Oklahoma	W-130-R-9	1-1,2,3	36.4	8507	8606	001
Forest Land	BIG GAME INVESTIGATIONS Not applicable Whitetail Deer/Elk/Turkey Oklahoma	W-80-R-25	4-1	44.7	8507	8606	011
Forest Land	BIG GAME INVESTIGATIONS Diseases & parasites Whitetail Deer Oklahoma	W-80-R-25	3-1	14.9	8507	8606	012
Forest Land	BIG GAME INVESTIGATIONS Populations Whitetail Deer/Turkey Oklahoma	W-80-R-25	5-1	9.6	8507	8606	016

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	BIG GAME INVESTIGATIONS Mortality Whitetail Deer Texas	W-109-R-9	45	32.0	8503	8602	023
Forest Land	BIG GAME INVESTIGATIONS Age & growth Whitetail Deer Texas	W-109-R-9	42	28.0	8503	8602	024
Forest Land	BIG GAME INVESTIGATIONS Life history Whitetail Deer Texas	W-109-R-9	41	8.0	8503	8602	025
Forest Land	BIG GAME INVESTIGATIONS Plant control Whitetail Deer Texas	W-109-R-9	39	60.0	8503	8602	026
Forest Land	BIG GAME INVESTIGATIONS Anatomy & physiology Whitetail Deer Texas	W-109-R-9	38	8.0	8503	8602	027
Forest Land	BIG GAME INVESTIGATIONS Age & growth Whitetail Deer Texas	W-109-R-9	14	120.0	8503	8602	036
Forest Land	BIG GAME INVESTIGATIONS Harvest Whitetail Deer Texas	W-109-R-9	4	75.0	8503	8602	039
Forest Land	BIG GAME INVESTIGATIONS Harvest Whitetail Deer Texas	W-109-R-9	3	200.0	8503	8602	040
Forest Land	BIG GAME INVESTIGATIONS Harvest Whitetail Deer Texas	W-109-R-9	1	435.0	8503	8602	041
Forest Land	BIG GAME INVESTIGATIONS Barriers Whitetail Deer Texas	W-109-R-9	49	12.0	8503	8602	043

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	BIG GAME INVESTIGATIONS Management techniques Whitetail Deer	W-109-R-9	56	30.0	8503	8604	
	Texas						048
Forest Land	WILD CERVID STUDY - WINTER DEER RANGE SURVEY Food habits Whitetail Deer	W-34-R-23	II	32.0	8507	8606	
	Vermont						006
Forest Land	STATEWIDE WILDLIFE RESEARCH Management techniques Whitetail Deer	W-141-R-21	212	18.2	8507	8606	
	Wisconsin						021
General Agricultural Land	FOREST WILDLIFE INVESTIGATIONS Mortality Whitetail Deer	W-63-R(SI)	4	22.6	8507	8606	
	Illinois						012
General Agricultural Land	STATEWIDE WILDLIFE RESEARCH Mortality Whitetail Deer	W-26-R-17	38-B	2.3	8507	8606	
	Indiana						014
General Agricultural Land	WILDLIFE RESEARCH AND SURVEYS IN IOWA Food habits Whitetail Deer	W-115-R-12	29	26.6	8410	8509	
	Iowa						006
General Agricultural Land	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Habitats Whitetail Deer	W-13-R-40	74	16.5	8507	8606	
	Missouri						027
General/Multiple Habitats	STATEWIDE INVESTIGATIONS Mortality Mule Deer/Whitetail Deer	W-78-R-29	2-30	47.3	8503	8506	
	Arizona						020
General/Multiple Habitats	STATEWIDE INVESTIGATIONS Mortality Mule Deer/Whitetail Deer	W-78-R-30	2-30	60.4	8506	8606	
	Arizona						026
General/Multiple Habitats	STATEWIDE RESEARCH PROJECT Basic survey Whitetail Deer	W-56-24	II-A-1	70.6	8510	8609	
	Arkansas						002

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SPECIES: WHITETAIL DEER

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Basic survey Whitetail Deer Connecticut	W-49-R-11	4	152.0	8510	8609	004
General/Multiple Habitats	FOREST WILDLIFE INVESTIGATIONS Diseases & parasites Whitetail Deer Illinois	W-63-R(SI)	6	19.4	8507	8606	010
General/Multiple Habitats	COOPERATIVE FOREST WILDLIFE RESEARCH Populations Whitetail Deer Illinois	W-87-R-7	VII-C-10	29.8	8507	8606	014
General/Multiple Habitats	COOPERATIVE FOREST WILDLIFE RESEARCH Planning Whitetail Deer Illinois	W-87-R-7	VII-B-10	59.7	8507	8606	017
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Harvest Whitetail Deer Indiana	W-26-R-17	13-B	55.1	8507	8606	012
General/Multiple Habitats	BIG GAME RESEARCH - DEER Populations Whitetail Deer Maine	W-67-R-16	I	154.6	8410	8509	010
General/Multiple Habitats	BIG GAME RESEARCH - DEER Populations Whitetail Deer Maine	W-67-R-17	I	129.6	8510	8609	015
General/Multiple Habitats	WILDLIFE MODULAR PLAN OPTION Populations Whitetail Deer Maryland	WEP-100-2	409910	81.2	8507	8606	002
General/Multiple Habitats	GAME POPULATION TREND AND HARVEST SURVEY - WHITETAILED DEER STUDY Populations Whitetail Deer Massachusetts	W-35-R-28	II	126.4	8509	8606	004
General/Multiple Habitats	WILDLIFE MANAGEMENT PLANNING & RESEARCH Populations Whitetail Deer Missouri	W-13-R-40	2	56.3	8507	8606	006

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Life history Whitetail Deer Montana	W-120-R-17	BG-2.0	58.0	8507	8606	007
General/Multiple Habitats	BIG GAME MANAGEMENT RESEARCH - KILKENNY DEER YARD SURVEY Harvest Whitetail Deer New Hampshire	W-12-R-39	IV	6.0	8507	8606	003
General/Multiple Habitats	BIG GAME MANAGEMENT RESEARCH - BIG GAME HARVEST STUDIES Mortality Whitetail Deer New Hampshire	W-12-R-39	I	27.5	8507	8606	004
General/Multiple Habitats	BIG GAME MANAGEMENT RESEARCH - DEER MORTALITY STUDIES Mortality Whitetail Deer New Hampshire	W-12-R-39	VIII	11.5	8507	8606	006
General/Multiple Habitats	BIG GAME MANAGEMENT AND RESEARCH Harvest Whitetail Deer New Hampshire	W-12-R-39	II	4.0	8507	8606	008
General/Multiple Habitats	A STUDY OF THE NEW JERSEY DEER HERD Populations Whitetail Deer New Jersey	W-45-R-21	IV	3.5	8408	8507	002
General/Multiple Habitats	A STUDY OF THE NEW JERSEY DEER HERD Management techniques Whitetail Deer New Jersey	W-45-R-22	V	11.1	8508	8607	003
General/Multiple Habitats	A STUDY OF THE NEW JERSEY DEER HERD Anatomy & physiology Whitetail Deer New Jersey	W-45-R-22	II	107.9	8508	8607	004
General/Multiple Habitats	A STUDY OF THE NEW JERSEY DEER HERD Mortality Whitetail Deer New Jersey	W-45-R-22	I	91.2	8508	8607	005
General/Multiple Habitats	WILDLIFE ECOLOGY, BEHAVIOR AND HABITAT IMPROVEMENT IN NEW YORK Basic survey Whitetail Deer New York	W-105-R-24	XIII	40.0	8406	8503	001

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	ENERGY RELATIONSHIPS OF HOMEOTHERMS TO THEIR ENVIRONMENT - THE THERMAL ENERGY BALANCE OF WHITE-TAILED DEER Life history Whitetail Deer New York	W-124-R-16	I	1.1	8507	8606	003
General/Multiple Habitats	WILDLIFE SURVEY AND INVENTORIES - BIOLOGICAL INVENTORIES Basic survey Black Bear/Whitetail Deer/Furbearers/Turkey New York	W-126-R-13	II	54.4	8404	8503	005
General/Multiple Habitats	WILDLIFE SURVEYS AND INVENTORIES - COORDINATING FIELD INVENTORIES AND DATA COLLECTION Basic survey Black Bear/Whitetail Deer/Furbearers/Waterfowl New York	W-126-R-13	I	27.9	8404	8503	007
General/Multiple Habitats	WILDLIFE SURVEY AND INVENTORIES - BIOLOGICAL INVENTORIES Basic survey Black Bear/Whitetail Deer/Furbearers/Turkey New York	W-126-R-14	II	93.0	8504	8603	008
General/Multiple Habitats	WILDLIFE SURVEY AND INVENTORIES - COORDINATING FIELD INVENTORIES AND DATA COLLECTION Basic survey Black Bear/Whitetail Deer/Furbearers/Turkey New York	W-126-R-14	I	38.0	8504	8603	010
General/Multiple Habitats	BIG GAME MANAGEMENT - DEER POPULATION MANAGEMENT Harvest Whitetail Deer New York	W-89-R-30	I	45.0	8504	8603	031
General/Multiple Habitats	BIG GAME MANAGEMENT - BIG GAME PROGRAM DIRECTION Planning Whitetail Deer New York	W-89-R-30	IV	17.6	8504	8603	032
General/Multiple Habitats	WILDLIFE SURVEYS AND INVESTIGATIONS Diseases & parasites Pronghorn/Mule Deer/Whitetail Deer North Dakota	W-67-R-26	A-V	51.0	8507	8606	003
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Populations Mule Deer/Whitetail Deer North Dakota	W-67-R-26	C-I	75.0	8507	8606	006
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Food habits Whitetail Deer/Coyote North Dakota	W-67-R-26	E-VIII	10.8	8507	8606	010

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Populations Whitetail Deer/Turkey	W-23-R-29	IV	45.0	8504	8603	
	Rhode Island						005
General/Multiple Habitats	WILDLIFE RESEARCH Behavior Whitetail Deer	W-75-R-28	7526	9.0	8507	8606	
	South Dakota						005
General/Multiple Habitats	WILDLIFE MANAGEMENT SURVEYS Populations Mule Deer/Whitetail Deer	W-95-R-20	9507	113.0	8510	8703	
	South Dakota						023
General/Multiple Habitats	BIG GAME INVESTIGATIONS Anatomy & physiology Whitetail Deer	W-109-R-9	58	10.0	8503	8602	
	Texas						046
General/Multiple Habitats	WILD CERVID STUDY - STUDY OF POPULATION DYNAMICS AND PHYSICAL CONDITION OF VERMONT DEER Populations Whitetail Deer	W-34-R-23	I	76.0	8507	8606	
	Vermont						005
General/Multiple Habitats	WILD CERVID STUDY - DISSEMINATION OF WHITE-TAILED DEER PROJECT RESULTS Management techniques Whitetail Deer	W-34-R-23	IV	23.0	8507	8606	
	Vermont						007
General/Multiple Habitats	WILD CERVID STUDY Developments Whitetail Deer	W-34-R-23	III	28.0	8507	8606	
	Vermont						009
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Populations Whitetail Deer	W-74-R-4	II	111.3	8507	8606	
	Virginia						004
General/Multiple Habitats	STATEWIDE WILDLIFE - WHITE-TAILED DEER RESEARCH Mortality Whitetail Deer	W-48-R-2	V	36.0	8507	8606	
	West Virginia						009
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Reproduction Whitetail Deer	W-141-R-21	227	4.2	8507	8606	
	Wisconsin						011

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Hardwoods (Generally Deciduous)	STATEWIDE WILDLIFE RESEARCH Behavior Whitetail Deer	W-26-R-17	40-B	22.8	8507	8606	
		Indiana					010
Hardwoods (Generally Deciduous)	STATEWIDE WILDLIFE RESEARCH Research techniques Whitetail Deer	W-26-R-17	39-B	7.4	8507	8606	
		Indiana					011
Hardwoods (Generally Deciduous)	WILDLIFE MODULAR PLAN OPTION Food habits Whitetail Deer/Turkey	WEP-100-2	409913	1.8	8507	8606	
		Maryland					027
Indoor Laboratory/Facility	WILDLIFE HEALTH PROJECT Diseases & parasites Whitetail Deer	W-62-R-2	III	7.2	8505	8604	
		New Jersey					014
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE INVESTIGATIONS Harvest Whitetail Deer	W-35-33	II	21.0	8510	8609	
		Alabama					003
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE INVESTIGATIONS Populations Whitetail Deer	W-35-33	V-A	5.8	8510	8609	
		Alabama					005
Mixed Hardwoods and Conifers	WILDLIFE RESOURCE MANAGEMENT Diseases & parasites Whitetail Deer	W-54-8	I	24.8	8507	8606	
		Florida					021
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE SURVEYS Populations Whitetail Deer	W-47-8	III	18.3	8507	8605	
		Georgia					006
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE SURVEYS Populations Whitetail Deer	W-47-8	IV	8.0	8507	8606	
		Georgia					016
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE MANAGEMENT Populations Whitetail Deer	W-45-17	D-S-I	35.4	8507	8606	
		Kentucky					001

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE MANAGEMENT Mortality Whitetail Deer	W-45-17	D-R-II	16.4	8507	8606	
	Kentucky						009
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE INVESTIGATIONS Basic survey Whitetail Deer	W-29-33	I	123.8	8507	8606	
	Louisiana						002
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE RESEARCH Management techniques Whitetail Deer	W-127-R-4	2	27.8	8510	8609	
	Michigan						017
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE INVESTIGATIONS Age & growth Whitetail Deer	W-48-32	VII	4.5	8507	8606	
	Mississippi						002
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE INVESTIGATIONS Food production or provision Whitetail Deer	W-48-33	XXIV	40.4	8507	8606	
	Mississippi						010
Mixed Hardwoods and Conifers	WILDLIFE MANAGEMENT IN NORTH CAROLINA Populations Whitetail Deer	W-57-11	83	76.5	8510	8609	
	North Carolina						004
Mixed Hardwoods and Conifers	WILDLIFE MANAGEMENT IN NORTH CAROLINA Populations Whitetail Deer	W-57-11	8-6	20.3	8510	8609	
	North Carolina						013
Mixed Hardwoods and Conifers	FOREST WILDLIFE RESEARCH PROJECT Harvest Whitetail Deer	W-105-R-27	4	70.1	8507	8606	
	Ohio						011
Mixed Hardwoods and Conifers	BIG GAME INVESTIGATIONS Populations Turkey/Whitetail Deer	W-80-R-25	5-2	9.8	8507	8606	
	Oklahoma						017
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE RESEARCH Plant control Whitetail Deer	W-141-R-21	226	6.6	8507	8606	
	Wisconsin						013

SPRING 1986
SPECIES: WHITETAIL DEER

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE RESEARCH Harvest Whitetail Deer Wisconsin	W-141-R-21	209	13.2	8507	8606	022
Mixed Range	BIG GAME INVESTIGATIONS Research techniques Whitetail Deer Texas	W-109-R-9	55	4.6	8503	8602	050
Mixed Range	BIG GAME INVESTIGATIONS Anatomy & physiology Whitetail Deer Texas	W-109-R-9	61	44.0	8503	8602	052
Not Applicable	STATEWIDE GAME MANAGEMENT SURVEY Not applicable Nongame Birds/Tree Squirrel/Whitetail Deer Arizona	W-53-R-36	1-4	4.3	8507	8606	006
Outdoor Laboratory - Terrestial (Pens)	COOPERATIVE WILDLIFE PROJECTS Age & growth Whitetail Deer Alabama	W-44-11	I	9.0	8510	8609	013
Outdoor Laboratory - Terrestial (Pens)	STATEWIDE WILDLIFE RESEARCH Anatomy & physiology Whitetail Deer Michigan	W-127-R-4	1	83.3	8510	8609	016
Rangeland	STATEWIDE WILDLIFE SURVEYS AND INVENTORIES Populations Whitetail Deer Idaho	W-170-R-10	I-3	6.0	8507	8606	011
Shrub-Brushland Range	BIG GAME INVESTIGATIONS Reproduction Whitetail Deer Texas	W-109-R-9	59	6.0	8503	8602	044
Shrub-Brushland Range	BIG GAME INVESTIGATIONS Anatomy & physiology Whitetail Deer Texas	W-109-R-9	60	5.0	8503	8602	053
Urban and Built-Up Land	COOPERATIVE FOREST WILDLIFE RESEARCH Planning Whitetail Deer Illinois	W-87-R-7	VII-D-10	40.4	8507	8606	013

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Urban and Built-Up Land	COOPERATIVE FOREST WILDLIFE RESEARCH Research techniques Whitetail Deer Illinois	W-87-R-7	VII-D-10	39.9	8507	8606	015
Urban and Built-Up Land	COOPERATIVE FOREST WILDLIFE RESEARCH Planning Whitetail Deer Illinois	W-87-R-7	VII-D-10	27.3	8507	8606	016
Urban and Built-Up Land	COOPERATIVE FOREST WILDLIFE RESEARCH Habitats Whitetail Deer Illinois	W-87-R-7	VII-D-10	26.9	8507	8606	018

SPRING 1986
SPECIES: CARIBOU

CURRENT FEDERAL AID RESEARCH - WILDLIFE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Habitats Caribou/Ungulates-Even-Toe Alaska	W-22-4	XIVB-14.	96.5	8411	8506	029
Conifers	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Habitats Otter/Moose/Caribou Alaska	W-22-4	XIX-19.3	3.8	8504	8506	026
Conifers	ENDANGERED SPECIES RESEARCH AND INVENTORY (COOPERATIVE STUDY BETWEEN WASHINGTON AND IDAHO) Management techniques Caribou/Grizzly Bear Idaho	E-3	E-3-1	86.0	8503	8602	001
Conifers	ENDANGERED SPECIES RESEARCH AND INVENTORY Management techniques Caribou Idaho	E-3	E-3-1	86.0	8503	8602	002
Forest Land	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Developments Caribou Alaska	W-22-4	IIIB-3.3	50.3	8407	8506	024
Forest Land	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Populations Caribou Alaska	W-22-4	XIVB-14.	21.4	8411	8506	028
Forest Land	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Life history Muskox/Moose/Caribou Alaska	W-22-5	XIXA-19.	11.1	8507	8606	050
Tundra	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Developments Caribou Alaska	W-22-4	.IIE-3.1	30.5	8407	8506	012
Tundra	ALASKA WILDLIFE RESEARCH AND MANAGEMENT - DEMOGRAPHY OF THE DELTA CARIBOU HERD UNDER VARYING RATES OF NATURAL MORTALITY AND HUMAN HARVEST Populations Caribou Alaska	W-22-4	IIIB-3.2	62.3	8407	8506	013
Tundra	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Populations Caribou Alaska	W-22-4	IIIE-3.3	12.4	8407	8506	014

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Tundra	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Migration Caribou Alaska	W-22-4	IIIE-3.3	32.5	8407	8506	015
Tundra	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Developments Caribou Alaska	W-22-4	IIIB-3.2	21.8	8407	8506	020
Tundra	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Migration Caribou Alaska	W-22-4	IIIB-3.2	50.3	8407	8506	030
Tundra	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Developments Caribou Alaska	W-22-5	IIIE-3.3	51.8	8507	8606	036
Tundra	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Populations Caribou Alaska	W-22-5	IIIE-3.2	40.8	8507	8606	037
Tundra	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Developments Caribou Alaska	W-22-5	IIIB-3.3	56.6	8507	8606	038
Tundra	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Populations Caribou Alaska	W-22-5	IIIB-3.3	71.5	8507	8606	043
Tundra	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Behavior Caribou Alaska	W-22-5	XIXA-19.	11.2	8507	8606	049
Tundra	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Developments Caribou Alaska	W-22-5	IIIB-3.2	33.9	8507	8606	053

SPRING 1986
SPECIES: PRONGHORN

CURRENT FEDERAL AID RESEARCH - WILDLIFE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	GAME SURVEYS Harvest Pronghorn New Mexico	W-93-R-28	WP4-J1	90.0	8507	8606	035
General/Multiple Habitats	WILDLIFE SURVEYS AND INVESTIGATIONS Diseases & parasites Pronghorn/Mule Deer/Whitetail Deer North Dakota	W-67-R-26	A-V	51.0	8507	8606	003
Herbaceous Range	STATEWIDE WILDLIFE RESEARCH Food habits Cervids/Pronghorn/Upland Birds/Domestic Cattle Montana	W-120-R-17	BG 11.0	28.0	8507	8606	010
Herbaceous Range	WILDLIFE MANAGEMENT SURVEYS Populations Pronghorn South Dakota	W-95-R-20	9508	33.0	8510	8703	026
Mixed Range	MAMMAL II STUDIES Populations Pronghorn Colorado	FW-26-P-4	WP 3 J 1	38.7	8507	8606	010
Mixed Range	STATEWIDE WILDLIFE PROGRAM Populations Pronghorn Nevada	W-48-R-17	I-2	43.7	8507	8606	007
Rangeland	STATEWIDE GAME MANAGEMENT SURVEY Stocking Pronghorn Arizona	W-53-R-36	6-1	12.0	8507	8606	004
Rangeland	STATEWIDE INVESTIGATIONS Research techniques Pronghorn Arizona	W-78-R-29	4-23	18.7	8503	8506	018
Rangeland	STATEWIDE INVESTIGATIONS Research techniques Pronghorn Arizona	W-78-R-30	4-23	33.8	8507	8606	029
Rangeland	WILDLIFE RESEARCH OR SURVEYS - BIG GAME INVESTIGATIONS Basic survey Pronghorn/Feral Animals California	W-65-R-3	I-6	2.3	8507	8606	015

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Rangeland	STATEWIDE WILDLIFE SURVEYS AND INVENTORIES - ANTELOPE SURVEYS Populations Pronghorn	W-170-R-10	I-7	16.0	8507	8606	
	Idaho						020
Rangeland	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Populations Pronghorn	W-67-R-26	C-II	16.0	8507	8606	
	North Dakota						008
Rangeland	BIG GAME INVESTIGATIONS Basic survey Pronghorn	W-80-R-25	1-1	7.3	8507	8606	
	Oklahoma						010
Rangeland	BIG GAME INVESTIGATIONS Harvest Pronghorn	W-109-R-9	6	68.0	8503	8602	
	Texas						038

SPRING 1986
SPECIES: BOVIDS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	STATEWIDE GAME RESEARCH SURVEYS AND INVENTORIES Populations Cervids/Bovids	W-17-R-11	II	26.6	8507	8606	
	Hawaii						002

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Exposed Bare Rock	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Life history Mountain Goat Alaska	W-22-5	VIA-6.10	62.2	8507	8606	035
Exposed Bare Rock	MAMMAL II STUDIES Life history Mountain Goat/Wild Sheep Colorado	FW-26-P-4	WP 4 J 1	27.4	8507	8606	009
Exposed Bare Rock	WILDLIFE RESEARCH Populations Mountain Goat South Dakota	W-75-R-28	7527	21.8	8507	8606	007
Forest Land	STATEWIDE WILDLIFE PROGRAM Populations Mountain Goat Nevada	W-48-R-17	I-6	3.1	8507	8606	011
Rangeland	STATEWIDE WILDLIFE SURVEYS AND INVENTORIES Populations Mountain Goat Idaho	W-170-R-10	I-5	9.3	8507	8606	022
Rangeland	GAME SURVEYS Harvest Mountain Goat New Mexico	W-93-R-27	WP16-J2	10.0	8507	8606	027
Rangeland	GAME SURVEYS Harvest Mountain Goat New Mexico	W-93-R-28	WP16-J1	24.8	8507	8606	032

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Desert Shrub	BIGHORN SHEEP RESEARCH Stocking Wild Sheep	W-127-R-2	3	10.1	8505	8604	
	New Mexico						021
Desert Shrub	BIGHORN SHEEP RESEARCH Stocking Wild Sheep	W-127-R-2	1	43.9	8505	8604	
	New Mexico						022
Desert Shrub	BIGHORN SHEEP RESEARCH Stocking Wild Sheep	W-127-R-2	2	30.7	8505	8604	
	New Mexico						023
Exposed Bare Rock	ALASKA WILDLIFE RESEARCH AND MANAGEMENT - DYNAMICS OF HIGH AND LOW QUALITY Life history Wild Sheep	W-22-4	VIA-6.9	86.9	8407	8506	
	Alaska						009
Exposed Bare Rock	MAMMAL II STUDIES Life history Mountain Goat/Wild Sheep	FW-26-P-4	WP 4 J 1	27.4	8507	8606	
	Colorado						009
Forest Land	WILDLIFE RESEARCH OR INVENTORY - BIG GAME INVESTIGATIONS Basic survey Wild Sheep	W-65-R-3	I-4	16.2	8507	8606	
	California						003
Forest Land	WILDLIFE RESEARCH Research techniques Wild Sheep	W-160-R-13	I,II	64.4	8507	8606	
	Idaho						007
Forest Land	STATEWIDE WILDLIFE SURVEYS AND INVENTORIES Populations Wild Sheep	W-170-R-10	I-4	14.6	8507	8606	
	Idaho						023
Forest Land	STATEWIDE WILDLIFE PROGRAM Populations Wild Sheep	W-48-R-17	I-3	34.3	8507	8606	
	Nevada						006
Forest Land	GAME SURVEYS Harvest Wild Sheep	W-93-R-28	WP5-J1	37.5	8507	8606	
	New Mexico						034

SPRING 1986
SPECIES: WILD SHEEP

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Laboratory (General)	COMPREHENSIVE MANAGEMENT Anatomy & physiology Wild Sheep	FW-17-P-4	WJJ	10.4	8507	0606	
		Wyoming					002
Mixed Hardwoods and Conifers	ROCKY MOUNTAIN FRONT WILDLIFE STUDIES Life history Wild Sheep/Wild Sheep	FW-4-R-6	1-a	35.7	8507	8606	
		Montana					001
Mixed Hardwoods and Conifers	ROCKY MOUNTAIN FRONT WILDLIFE STUDIES Life history Wild Sheep/Wild Sheep	FW-4-R-6	1-a	35.7	8507	8606	
		Montana					001
Mixed Hardwoods and Conifers	BIGHORN SHEEP RESEARCH Stocking Wild Sheep	W-127-R-2	4	7.5	8505	8604	
		New Mexico					024
Outdoor Laboratory - Terrestial (Pens)	NON CERVID STUDIES Anatomy & physiology Wild Sheep	FW-26-P-3	WP2 J 4	41.9	8507	8606	
		Colorado					002
Rangeland	STATEWIDE GAME MANAGEMENT SURVEY Stocking Wild Sheep	W-53-R-36	6-2	20.0	8507	8606	
		Arizona					003
Rangeland	STATEWIDE INVESTIGATIONS Stocking Wild Sheep	W-78-R-30	2-26	19.3	8507	8606	
		Arizona					022
Rangeland	GAME SURVEYS Harvest Wild Sheep	W-93-R-28	WP5-J4	26.3	8507	8606	
		New Mexico					028
Rangeland	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATION Populations Wild Sheep	W-67-R-26	C-III	10.5	8507	8606	
		North Dakota					028
Rangeland	WILDLIFE RESEARCH Diseases & parasites Wild Sheep	W-75-R-28	7531	20.0	8507	8606	
		South Dakota					011

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Rangeland	BIG GAME INVESTIGATIONS Harvest Wild Sheep	W-109-R-9	8	4.0	8503	8602	
	Texas						032
Rangeland	BIG GAME INVESTIGATIONS Basic survey Wild Sheep	W-109-R-9	11	24.0	8503	8602	
	Texas						037

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	WILDLIFE INVESTIGATIONS Users Upland Game Virginia	W-74-R-4	VII	16.4	8507	8606	006
General Agricultural Land	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Plant production Upland Game Missouri	W-13-R-40	75	33.8	8507	8606	025
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Populations Upland Game Connecticut	W-49-R-11	2	15.7	8510	8609	006
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS Harvest Furbearers/Upland Game Illinois	W-49-R-SI-	15	18.3	8507	8606	008
General/Multiple Habitats	UPLAND GAME INVESTIGATIONS Users Upland Game Oklahoma	W-82-R-25	1-3	7.6	8507	8606	025
General/Multiple Habitats	UPLAND GAME INVESTIGATION Harvest Upland Game Oklahoma	W-82-R-25	1-4	10.3	8507	8606	026
General/Multiple Habitats	UPLAND GAME HARVEST INVESTIGATIONS Harvest Upland Game Texas	W-108-R-9	1	179.1	8504	8603	022
General/Multiple Habitats	STATEWIDE WILDLIFE MANAGEMENT, INVESTIGATION, AND SURVEYS Populations Upland Game Utah	W-65-RD-34	A-4	182.7	8509	8608	023
Hardwoods (Generally Deciduous)	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Planning Upland Birds/Upland Game/Habitats Missouri	W-13-R-40	86	26.6	8507	8606	024
Herbaceous Range	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Plant control Ducks/Grouse/Upland Game North Dakota	W-67-R-26	B-XVIII	22.5	8507	8606	029

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Wetlands/Riparian	STATEWIDE WILDLIFE PROGRAM Planning Waterfowl/Upland Game	W-48R-17	V-1,2,3	19.9	8507	8606	
	Nevada						031

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SPECIES: SMALL GAME

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Agricultural Land	STATEWIDE WILDLIFE MANAGEMENT Populations Small Game	W-45-17	SG-S-I	14.2	8507	8606	
	Kentucky						003
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Habitats Small Game	W-49-R-11	3	17.4	8510	8609	
	Connecticut						005
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Harvest Small Game	W-49-R-11	1	35.2	8510	8609	
	Connecticut						007
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Harvest Small Game/Galliforms	W-26-R-17	23-M	26.9	8507	8606	
	Indiana						004
General/Multiple Habitats	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Users Small Game	W-13-R-40	30	37.5	8507	8606	
	Missouri						010
General/Multiple Habitats	WILDLIFE MANAGEMENT IN NORTH CAROLINA Harvest Small Game	W-57-11	F4	12.4	8510	8609	
	North Carolina						012
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Diseases & parasites Small Game	W-67-R-26	A-III	9.0	8507	8606	
	North Dakota						001
General/Multiple Habitats	UPLAND GAME INVESTIGATIONS Planning Small Game/Furbearers/Turkey	W-82-R-25	2-1	24.0	8507	8606	
	Oklahoma						024

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Agricultural Land	WILDLIFE INVESTIGATIONS Harvest Whitetail Deer/Waterfowl/Cottontail/Quail	W-16-R-35	I	84.0	8507	8606	
		Delaware					003
Agricultural Land	WILDLIFE INVESTIGATIONS Harvest Whitetail Deer/Waterfowl/Cottontail/Quail	W-16-R-35	I	84.0	8507	8606	
		Delaware					008
Agricultural Land	STATEWIDE WILDLIFE SURVEYS Populations Cottontail	W-49-R-(SI	1	40.4	8507	8606	
		Illinois					003
Agricultural Land	WILDLIFE MAMAGEMENT PLANNING AND RESEARCH Populations Cottontail	W-13-R-40	17	22.5	8507	8606	
		Missouri					014
Agricultural Land	STATEWIDE WILDLIFE RESEARCH Habitats Cottontail/Ducks/Pheasant	W-141-R-21	129	16.4	8507	8606	
		Wisconsin					012
General Agricultural Land	WILDLIFE SURVEYS Harvest Cottontail	W-126-R(S)	1	5.7	8507	8606	
		Ohio					015
General/Multiple Habitats	WILDLIFE MODULAR PLAN OPTION Populations Cottontail/Quail	WEP-100-2	409927	3.7	8507	8606	
		Maryland					044
General/Multiple Habitats	GAME POPULATION TREND AND HARVEST SURVEY Stocking Cottontail	W-35-R-28	XXIII	5.6	8507	8606	
		Massachusetts					007
Mixed Hardwoods and Conifers	WILDLIFE MANAGEMENT IN NORTH CAROLINA Habitats Cottontail	W-57-11	C6	6.0	8510	8609	
		North Carolina					003
Mixed Range	STATEWIDE WILDLIFE PROGRAM Populations Cottontail	W-48-R-17	I-12	3.1	8507	8606	
		Nevada					003

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Mixed Range	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Populations Cottontail	W-67-R-26	B-XII	0.3	8507	8606	
	North Dakota						030
Rangeland	WILDLIFE RESEARCH OR SURVEYS - UPLAND GAME INVESTIGATIONS Populations Galliforms/Cottontail	W-65-R-3	II,III	30.0	8507	8606	
	California						007

SPRING 1986
SPECIES: HARE/RABBIT/PIKA

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Shrub-Brushland Range	GAME RANGE RESTORATION STUDIES Plant production Hare/Rabbit/Pika/Cervids/Domestic Cattle	W-82-R-31	VII	9.0	8504	8603	
	Utah						029

SPRING 1986
SPECIES: TREE SQUIRREL

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	WILDLIFE RESEARCH OR SURVEYS - UPLAND GAME INVESTIGATIONS Habitats Turkey/Tree Squirrel	W-65-R-3	IV	46.3	8507	8606	
	California						006
Forest Land	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Harvest Tree Squirrel	W-13-R-40	72	18.8	8507	8606	
	Missouri						023
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Populations Tree Squirrel	W-67-R-26	B-XIII	4.4	8507	8606	
	North Dakota						007
Not Applicable	STATEWIDE GAME MANAGEMENT SURVEY Not applicable Nongame Birds/Tree Squirrel/Whitetail Deer	W-53-R-36	1-4	4.3	8507	8606	
	Arizona						006

SPRING 1986
SPECIES: GRAY SQUIRREL

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	STATEWIDE WILDLIFE - SQUIRREL STUDIES Food habits Gray Squirrel	W-48-R-2	III	3.5	8507	8606	
		West Virginia					006
Hardwoods (Generally Deciduous)	WILDLIFE SURVEYS Harvest Gray Squirrel/Fox Squirrel	W-126-R(S)	4	2.1	8507	8606	
		Ohio					016
Mixed Hardwoods and Conifers	STATEWIDE RESEARCH AND SURVEY PROJECT Reproduction Gray Squirrel	W-56-25	III-A-1	13.4	8510	8609	
		Arkansas					003

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SPECIES: FOX SQUIRREL

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	ENDANGERED SPECIES PROGRAM Stocking Fox Squirrel/Hawks/Eagles/Falcons	E-1-8	II	11.0	8505	8605	
		Delaware					001
Hardwoods (Generally Deciduous)	WILDLIFE MODULAR PLAN OPTION Populations Fox Squirrel	WEP-100-2	409957	6.2	8507	8606	
		Maryland					031
Hardwoods (Generally Deciduous)	WILDLIFE MODULAR PLAN OPTION Stocking Fox Squirrel	WEP-100-2	409958	25.6	8507	8606	
		Maryland					037
Hardwoods (Generally Deciduous)	WILDLIFE SURVEYS Harvest Gray Squirrel/Fox Squirrel	W-126-R(S)	4	2.1	8507	8606	
		Ohio					016
Mixed Hardwoods and Conifers	WILDLIFE MANAGEMENT IN NORTH CAROLINA Life history Fox Squirrel	W-57-11	C5	27.2	8510	8609	
		North Carolina					001

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Harvest Small Game/Galliforms	W-26-R-17	23-M	26.9	8507	8606	
	Indiana						004
Rangeland	WILDLIFE RESEARCH OR SURVEYS - UPLAND GAME INVESTIGATIONS Populations Galliforms/Cottontail	W-65-R-3	II,III	30.0	8507	8606	
	California						007
Rangeland	Food production or provision Galliforms	W-17-R-11	VI	2.6	8507	8606	
	Hawaii						004

CURRENT FEDERAL AID RESEARCH - WILDLIFE

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SPECIES: GROUSE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE		PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Agricultural Land	STATEWIDE GAME RESEARCH SURVEYS AND INVENTORIES Populations Quail/Pheasant/Turkey/Grouse	Hawaii	W-17-R-11	I	19.1	8507	8606	003
Agricultural Land	STATEWIDE WILDLIFE SURVEYS AND INVENTORIES Populations Pheasant/Mourning Dove/Grouse	Idaho	W-170-R-10	II-1	34.1	8507	8606	017
Agricultural Land	SURVEYS AND RESEARCH - EVALUATION OF THE RE-ESTABLISHMENT POTENTIAL OF SHARP-TAILED GROUSE IN KANSAS COMPREHENSIVE PLANNING OPTION Stocking Grouse	Kansas	FW-9-P-4	8014	8.1	8507	8606	001
Cropland and Pasture	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Life history Grouse	Missouri	W-13-R-40	92	10.5	8507	8606	040
Forest Land	STATEWIDE RESEARCH PROJECT Stocking Grouse	Arkansas	W-56-26	II-D-1	14.4	8510	8609	011
Forest Land	STATEWIDE WILDLIFE PROGRAM Planning Grouse	Nevada	W-48-R-17	III-5	5.5	8507	8606	025
Forest Land	UPLAND GAME BIRD STUDIES Harvest Grouse	New York	W-81-R-33	XII	1.1	8504	8603	030
Forest Land	FOREST WILDLIFE RESEARCH PROJECT Behavior Grouse	Ohio	W-105-R-27	15	10.2	8507	8606	012
Forest Land	FOREST WILDLIFE RESEARCH Populations Grouse	Ohio	W-105-R-27	13	9.7	8507	8606	013
Forest Land	WILDLIFE INVESTIGATIONS Populations Grouse	Virginia	W-74-R-4	X	9.0	8507	8606	012

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	STATE WILDLIFE RESEARCH Harvest Pheasant/Grouse	W-95-R-2	I-1	38.8	8507	8606	
		Washington					007
Forest Land	STATEWIDE WILDLIFE - RUFFED GROUSE STUDIES Basic survey Grouse	W-48-R-2	II	12.0	8507	8606	
		West Virginia					007
Forest Land	STATEWIDE WILDLIFE RESEARCH Management techniques Grouse	W-141-R-21	213	0.8	8507	8606	
		Wisconsin					020
General Agricultural Land	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Reproduction Grouse	W-13-R-40	79	12.8	8507	8606	
		Missouri					019
General/Multiple Habitats	WILDLIFE MANAGEMENT SURVEYS Populations Grouse	W-95-R-20	9502	19.0	8510	8703	
		South Dakota					017
Hardwoods (Generally Deciduous)	STATEWIDE WILDLIFE RESEARCH Harvest Grouse/Turkey	W-26-R-17	16-G	34.1	8507	8606	
		Indiana					009
Hardwoods (Generally Deciduous)	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Populations Grouse	W-13-R-40	93	12.8	8507	8606	
		Missouri					036
Herbaceous Range	AVIAN RESEARCH Plant control Grouse	FW-26-P-4	WP-21-J3	19.6	8507	8606	
		Colorado					020
Herbaceous Range	AVAIAN RESEARCH Life history Grouse	FW-26-P-4	WP8-J5	12.0	8507	8607	
		Colorado					032
Herbaceous Range	AVIAN RESEARCH Life history Grouse	FW-26-P-4	WP14-J-3	29.9	8507	8606	
		Colorado					036

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SPECIES: GROUSE

CURRENT FEDERAL AID RESEARCH - WILDLIFE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Herbaceous Range	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Plant control Ducks/Grouse/Upland Game North Dakota	W-67-R-26	B-XVIII	22.5	8507	8606	029
Herbaceous Range	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Plant control Grouse North Dakota	W-67-R-26	B-XXI	12.0	8507	8606	032
Herbaceous Range	UPLAND GAME INVESTIGATIONS Populations Grouse Oklahoma	W-82-R-25	1-1	25.8	8507	8606	027
Herbaceous Range	WILDLIFE RESEARCH Stocking Grouse South Dakota	W-75-R-28	7532	31.3	8507	8606	013
Mixed Hardwoods and Conifers	AVIAN RESEARCH Populations Grouse Colorado	FW-26-P-4	WP17J7	7.7	8507	8606	006
Mixed Hardwoods and Conifers	AVIAN RESEARCH Anatomy & physiology Grouse Colorado	FW-26-P-4	WP9 8	12.6	8507	8606	018
Mixed Hardwoods and Conifers	COMPREHENSIVE PLANNING OPTION Stocking Grouse Kansas	FW-9-P-4	8013	8.7	8507	8606	002
Mixed Hardwoods and Conifers	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Populations Grouse Missouri	W-13-R-40	9	30.6	8507	8606	002
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Plant production Grouse North Dakota	W-67-R-26	B-XIV	10.5	8507	8606	009
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Populations Grouse North Dakota	W-67-R-26	B-XI	9.5	8507	8606	025

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Mixed Hardwoods and Conifers	FOREST WILDLIFE RESEARCH PROJECT Habitats Grouse	W-105-R-27	10	57.2	8507	8606	
	Ohio						009
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE RESEARCH Habitats Grouse	W-141-R-20	223	1.1	8507	8606	
	Wisconsin						003
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE RESEARCH Harvest Grouse	W-141-R-21	229	19.5	8507	8606	
	Wisconsin						015
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE RESEARCH Harvest Grouse	W-141-R-21	230	4.6	8507	8606	
	Wisconsin						016
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE RESEARCH Economics Grouse	W-141-R-21	202	12.7	8507	8606	
	Wisconsin						023
Mixed Range	AVIAN RESEARCH Life history Grouse	FW-26-P-4	WP 13 J	24.3	8507	8606	
	Colorado						007
Mixed Range	AVIAN RESEARCH Habitats Grouse	FW-26-P-4	WP 3 J 1	32.4	8507	8606	
	Colorado						013
Mixed Range	STATEWIDE WILDLIFE PROGRAM Populations Grouse	W-48-R-17	I-7	38.9	8507	8606	
	Nevada						019
Mixed Range	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Populations Grouse	W-67-R-26	B-V	33.0	8507	8606	
	North Dakota						022
Mixed Range	WILDLIFE RESEARCH COORDINATION Planning Big Game/Grouse/Coyote	W-75-C-5	1	59.3	8507	8606	
	Oregon						002

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SPECIES: GROUSE

CURRENT FEDERAL AID RESEARCH - WILDLIFE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Rangeland	WILDLIFE RESEARCH Behavior Grouse	W-160-R-13	I	70.6	8507	8606	
		Idaho					006
Rangeland	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Reproduction Grouse	W-13-R-40	56	15.0	8507	8606	
		Missouri					004
Rangeland	STATEWIDE WILDLIFE PROGRAM Harvest Grouse	W-48-R-17	R-XVII-1	11.6	8507	8606	
		Nevada					023
Rangeland	UPLAND GAME INVESTIGATIONS Stocking Grouse	W-108-R-9	34	17.7	8504	8603	
		Texas					021
Shrub-Brushland Range	AVIAN RESEARCH Populations Grouse	FW-26-P-4	WP 3 J 1	24.0	8507	8606	
		Colorado					015
Shrub-Brushland Range	OREGON WILDLIFE RESEARCH Populations Grouse	W-87-R-2	II-1-7	35.3	8507	8606	
		Oregon					008

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Agricultural Land	UPLAND GAME BIRD STUDIES - GRAY PARTRIDGE STUDIES Research techniques Partridge	W-31-R-33	VI	3.4	8504	8603	
	New York						027
Agricultural Land	STATE WILDLIFE SURVEYS AND INVESTIGATIONS Life history Partridge	W-67-R-26	B-XX	18.6	8507	8606	
	North Dakota						034
Barren Land	STATEWIDE WILDLIFE PROGRAM Populations Partridge	W-48-R-17	R XVIII-	6.6	8507	8606	
	Nevada						030
Cropland and Pasture	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Populations Partridge	W-67-R-26	B-IX	7.2	8507	8606	
	North Dakota						026
Cropland and Pasture	WILDLIFE MANAGEMENT SURVEYS Populations Partridge	W-95-R-20	9503	4.0	8510	8703	
	South Dakota						020
Mixed Range	STATEWIDE WILDLIFE PROGRAM Populations Partridge	W-48-R-17	I-8	28.2	8507	8606	
	Nevada						014

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SPECIES: PHEASANT

CURRENT FEDERAL AID RESEARCH - WILDLIFE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
	STATEWIDE WILDLIFE RESEARCH Reproduction aid Ducks/Pheasant/Grasses	W-141-R-21	127	15.5	8507	8606	
		Wisconsin					025
Agricultural Land	STATEWIDE GAME RESEARCH SURVEYS AND INVENTORIES Populations Quail/Pheasant/Turkey/Grouse	W-17-R-11	I	19.1	8507	8606	
		Hawaii					003
Agricultural Land	STATEWIDE WILDLIFE SURVEYS AND INVENTORIES Populations Pheasant/Mourning Dove/Grouse	W-170-R-10	II-1	34.1	8507	8606	
		Idaho					017
Agricultural Land	STATEWIDE WILDLIFE SURVEYS Harvest Pheasant	W-49-R(SI)	3	7.2	8507	8606	
		Illinois					002
Agricultural Land	STATEWIDE WILDLIFE RESEARCH Populations Pheasant	W-26-R-17	15-E	8.3	8507	8606	
		Indiana					007
Agricultural Land	WILDLIFE MODULAR PLAN OPTION Stocking Pheasant	WEP-100-2	409926	4.5	8507	8606	
		Maryland					010
Agricultural Land	WILDLIFE MODULAR PLAN OPTION Reproduction Pheasant	WEP-100-2	409928	12.6	8507	8606	
		Maryland					021
Agricultural Land	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Populations Pheasant	W-13-R-40	29	23.6	8507	8606	
		Missouri					011
Agricultural Land	STATEWIDE WILDLIFE PROGRAM Populations Pheasant	W-48-R-17	I-11	8.3	8507	8606	
		Nevada					004
Agricultural Land	STATEWIDE WILDLIFE PROGRAM Systematics Pheasant	W-48-R-17	III-9	9.0	8507	8606	
		Nevada					027

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Agricultural Land	UPLAND GAME BIRD STUDIES - RINGNECK PHEASANT STUDIES Populations Pheasant	W-81-R-33	III	111.0	8504	8603	
	New York						028
Agricultural Land	WILDLIFE RESEARCH Habitats Pheasant	W-75-R-28	7517	6.0	8506	8606	
	South Dakota						002
Agricultural Land	STATEWIDE WILDLIFE RESEARCH Habitats Cottontail/Ducks/Pheasant	W-141-R-21	129	16.4	8507	8606	
	Wisconsin						012
Cropland and Pasture	AVIAN RESEARCH Habitats Pheasant	FW-26-P-4	WP1 J23	6.2	8507	8606	
	Colorado						016
Cropland and Pasture	STATEWIDE WILDLIFE SURVEYS AND INVENTORIES Populations Pheasant	W-67-R-26	B-I	25.0	8507	8606	
	North Dakota						002
Cropland and Pasture	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Life history Waterfowl/Pheasant	W-67-R-26	B-III	50.0	8507	8606	
	North Dakota						014
Cropland and Pasture	UPLAND GAME BIRD INVESTIGATIONS Reproduction Pheasant	W-77-R-Z		29.7	8501	8512	
	NEBRASKA						001
Cropland and Pasture	UPLAND GAME INVESTIGATIONS Populations Pheasant	W-82-R-25	1-2	14.1	8507	8606	
	Oklahoma						028
Cropland and Pasture	WILDLIFE MANAGEMENT SURVEYS Populations Pheasant	W-95-R-20	9501	56.0	8510	8703	
	South Dakota						025
Cropland and Pasture	STATEWIDE WILDLIFE RESEARCH Reproduction aid Ducks/Pheasant	W-141-R-21	126	9.2	8507	8606	
	Wisconsin						026

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SPECIES: PHEASANT

CURRENT FEDERAL AID RESEARCH - WILDLIFE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	STATE WILDLIFE RESEARCH Harvest Pheasant/Grouse	W-95-R-2	I-1	38.8	8507	8606	
		Washington					007
General Agricultural Land	STATEWIDE WILDLIFE RESEARCH Populations Pheasant	W-127-R-4	71	88.5	8510	8609	
		Michigan					007
General Agricultural Land	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Populations Pheasant	W-13-R-40	87	5.6	8507	8606	
		Missouri					037
General Agricultural Land	UPLAND WILDLIFE RESEARCH Habitats Pheasant	W-103-R-29	23	27.3	8507	8606	
		Ohio					002
General Agricultural Land	WILDLIFE SURVEYS Harvest Pheasant	W-126-R(S)	2	5.7	8507	8606	
		Ohio					020
General Agricultural Land	STATEWIDE WILDLIFE RESEARCH Populations Pheasant	W-141-R-21	130	8.1	8507	8606	
		Wisconsin					033
General/Multiple Habitats	WILDLIFE MODULAR PLAN OPTION Reproduction Pheasant	WEP-100-2	409925	6.9	8507	8606	
		Maryland					003
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Life history Pheasant	W-141-R-21	123	2.9	8507	8606	
		Wisconsin					007
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Populations Ducks/Pheasant	W-141-R-21	316	93.7	8507	8606	
		Wisconsin					029

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Agricultural Land	COOPERATIVE WILDLIFE PROJECTS Reproduction Quail	W-44-11	XII	16.4	8510	8609	
		Alabama					009
Agricultural Land	WILDLIFE INVESTIGATIONS Harvest Whitetail Deer/Waterfowl/Cottontail/Quail	W-16-R-35	I	84.0	8507	8606	
		Delaware					003
Agricultural Land	WILDLIFE INVESTIGATIONS Harvest Whitetail Deer/Waterfowl/Cottontail/Quail	W-16-R-35	I	84.0	8507	8606	
		Delaware					008
Agricultural Land	STATEWIDE GAME RESEARCH SURVEYS AND INVENTORIES Populations Quail/Pheasant/Turkey/Grouse	W-17-R-11	I	19.1	8507	8606	
		Hawaii					003
Agricultural Land	STATEWIDE WILDLIFE SURVEYS Basic survey Quail	W-49-R(SI)	4	8.6	8507	8606	
		Illinois					001
Agricultural Land	WILDLIFE MODULAR PLAN OPTION Populations Quail	WEP-100-2	409924	4.5	8507	8606	
		Maryland					032
Agricultural Land	STATEWIDE WILDLIFE RESEARCH Plant production Quail	W-141-R-21	112	4.8	8507	8606	
		Wisconsin					005
Cropland and Pasture	STATEWIDE WILDLIFE RESEARCH Populations Quail	W-26-R-17	20-F	2.5	8507	8606	
		Indiana					005
Forest Land	UPLAND GAME INVESTIGATIONS Populations Quail	W-108-R-9	37	9.2	8504	8603	
		Texas					019
General Agricultural Land	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Plant production Quail	W-13-R-40	80	15.0	8507	8606	
		Missouri					032

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General Agricultural Land	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Basic survey Quail	W-13-R-40	91	12.8	8507	8606	
		Missouri					034
General Agricultural Land	UPLAND WILDLIFE RESEARCH Stocking Quail	W-103-R-29	18	43.8	8507	8606	
		Ohio					003
General Agricultural Land	WILDLIFE SURVEYS Harvest Quail	W-126-R(S)	3	5.7	8507	8606	
		Ohio					017
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS Harvest Quail	W-47-8	XII	7.1	8507	8606	
		Georgia					011
General/Multiple Habitats	WILDLIFE MODULAR PLAN OPTION Populations Cottontail/Quail	WEP-100-2	409927	3.7	8507	8606	
		Maryland					044
General/Multiple Habitats	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Populations Quail	W-13-R-40	4	38.3	8507	8606	
		Missouri					005
General/Multiple Habitats	WILDLIFE MANAGEMENT SURVEYS Populations Quail	W-95-R-20	9504	2.3	8510	8703	
		South Dakota					021
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Populations Quail	W-74-R-4	XI	43.0	8507	8606	
		Virginia					017
Rangeland	UPLAND GAME INVESTIGATIONS Harvest Quail	W-108-R-9	38	11.1	8504	8603	
		Texas					018
Shrub-Brushland Range	STATEWIDE WILDLIFE PROGRAM Populations Quail	W-48-R-17	I-9	20.3	8507	8606	
		Nevada					018

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Agricultural Land	STATEWIDE GAME RESEARCH SURVEYS AND INVENTORIES Populations Quail/Pheasant/Turkey/Grouse	W-17-R-11	I	19.1	8507	8606	
	Hawaii						003
Conifers	WILD TURKEY INVESTIGATIONS Life history Turkey	W-42-16	X	8.0	8507	8606	
	South Carolina						005
Conifers	WILD TURKEY INVESTIGATIONS Reproduction Turkey	W-42-16	IX	10.5	8507	8606	
	South Carolina						007
Forest Land	STATEWIDE GAME MANAGEMENT SURVEYS Stocking Turkey	W-53-R-36	6-5	1.7	8507	8606	
	Arizona						001
Forest Land	STATEWIDE INVESTIGATIONS Migration Turkey	W-78-R-29	4-24	45.8	8503	8506	
	Arizona						019
Forest Land	STATEWIDE INVESTIGATIONS Populations Turkey	W-78-R-30	4-24	31.4	8507	8606	
	Arizona						028
Forest Land	WILDLIFE RESEARCH OR SURVEYS - UPLAND GAME INVESTIGATIONS Habitats Turkey/Tree Squirrel	W-65-R-3	IV	46.3	8507	8606	
	California						006
Forest Land	WILDLIFE INVESTIGATIONS Populations Turkey	W-49-R-11	5	84.0	8510	8609	
	Connecticut						003
Forest Land	WILDLIFE INVESTIGATIONS Stocking Turkey	W-16-R-35	IX	11.0	8507	8606	
	Delaware						009
Forest Land	WILDLIFE INVESTIGATIONS Stocking Turkey	W-16-R-35	IX	11.0	8507	8606	
	Delaware						010

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SPECIES: TURKEY

CURRENT FEDERAL AID RESEARCH - WILDLIFE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	SMALL GAME FURBEARER RESEARCH - NON-NATIVE GAME (TURKEYS) Populations Turkey Maine	W-69-R-16	IV	3.8	8410	8509	019
Forest Land	SMALL GAME FURBEARER RESEARCH - NON-NATIVE GAME (TURKEYS) Populations Turkey Maine	W-69-R-17	IV	21.8	8510	8609	021
Forest Land	WILDLIFE MODULAR PLAN OPTION Harvest Turkey Maryland	WEP-100-2	409911	31.6	8507	8606	004
Forest Land	WILDLIFE MODULAR PLAN OPTION Stocking Turkey Maryland	WEP-100-2	409912	15.0	8507	8606	005
Forest Land	GAME POPULATION TREND AND HARVEST SURVEY - WILD TURKEY RESTORATION STUDY Stocking Turkey Massachusetts	W-35-R-28	IV	74.0	8509	8606	002
Forest Land	STATEWIDE WILDLIFE INVESTIGATIONS Populations Turkey Mississippi	W-48-33	XXI	40.0	8507	8606	007
Forest Land	WILD TURKEY STUDIES Stocking Turkey New Hampshire	W-75-R-8	I	28.2	8507	8608	011
Forest Land	WILD TURKEY STUDIES Stocking Turkey New Hampshire	W-75-R-8	I	28.2	8507	8608	012
Forest Land	UPLAND WILDLIFE AND FURBEARER RESEARCH Populations Turkey New Jersey	W-64-R-1	I	33.7	8508	8607	017
Forest Land	GAME BIRD STUDIES Life history Turkey New Mexico	W-104-R-26	18-1	25.3	8501	8512	005

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	GAME SURVEYS Harvest Turkey	W-93-R-28	WP6-J1	28.8	8507	8606	
	New Mexico						029
Forest Land	UPLAND GAME BIRD STUDIES - WILD TURKEY STUDIES Harvest Turkey	W-81-R-33	I	14.1	8504	8603	
	New York						029
Forest Land	WILDLIFE MANAGEMENT IN NORTH CAROLINA Populations Turkey	W-57-11	A-7	12.0	8510	8609	
	North Carolina						015
Forest Land	BIG GAME INVESTIGATIONS Not applicable Whitetail Deer/Elk/Turkey	W-80-R-25	4-1	44.7	8507	8606	
	Oklahoma						011
Forest Land	BIG GAME INVESTIGATIONS Harvest Cervids/Turkey	W-80-R-25	1-4	164.0	8507	8606	
	Oklahoma						014
Forest Land	BIG GAME INVESTIGATIONS Stocking Turkey	W-80-R-25	2-1	43.8	8507	8606	
	Oklahoma						015
Forest Land	BIG GAME INVESTIGATIONS Populations Whitetail Deer/Turkey	W-80-R-25	5-1	9.6	8507	8606	
	Oklahoma						016
Forest Land	UPLAND GAME INVESTIGATIONS Stocking Turkey	W-108-R-9	35	15.4	8504	8603	
	Texas						020
Forest Land	WILD TURKEY RESTORATION PROGRAM - DISSEMINATION OF PROJECT RESULTS Management techniques Turkey	W-37-R-18	IV	1.0	8507	8606	
	Vermont						010
Forest Land	WILD TURKEY RESTORATION PROGRAM - IN-STATE TRAP AND TRANSFER PROGRAM Stocking Turkey	W-37-R-18	II	2.0	8507	8606	
	Vermont						011

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	WILD TURKEY RESTORATION PROGRAM - HUNTING SEASON PREPARATION AND EVALUATION Harvest Turkey Vermont	W-37-R-18	III	11.0	8507	8606	012
Forest Land	WILD TURKEY RESTORATION PROGRAM - TO DETERMINE STATUS OF THE TURKEY POPULATION Populations Turkey Vermont	W-37-R-18	I	2.0	8507	8606	013
Forest Land	WILDLIFE INVESTIGATIONS Populations Turkey Virginia	W-74-R-4	IX	72.6	8507	8606	011
Forest Land	STATEWIDE WILDLIFE - WILD TURKEY STUDIES Basic survey Turkey West Virginia	W-48-R-2	I	47.0	8507	8606	008
General/Multiple Habitats	STATEWIDE RESEARCH PROJECT Harvest Turkey Arkansas	W-56-26	II-B-1	21.2	8510	8609	013
General/Multiple Habitats	WILDLIFE SURVEY AND INVENTORIES - BIOLOGICAL INVENTORIES Basic survey Black Bear/Whitetail Deer/Furbearers/Turkey New York	W-126-R-13	II	54.4	8404	8503	005
General/Multiple Habitats	WILDLIFE SURVEY AND INVENTORIES - BIOLOGICAL INVENTORIES Basic survey Black Bear/Whitetail Deer/Furbearers/Turkey New York	W-126-R-14	II	93.0	8504	8603	008
General/Multiple Habitats	WILDLIFE SURVEY AND INVENTORIES - COORDINATING FIELD INVENTORIES AND DATA COLLECTION Basic survey Black Bear/Whitetail Deer/Furbearers/Turkey New York	W-126-R-14	I	38.0	8504	8603	010
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Populations Turkey North Dakota	W-67-R-26	B-X	4.7	8507	8606	024
General/Multiple Habitats	UPLAND GAME INVESTIGATIONS Planning Small Game/Furbearers/Turkey Oklahoma	W-82-R-25	2-1	24.0	8507	8606	024

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Populations Whitetail Deer/Turkey	W-23-R-29	IV	45.0	8504	8603	
	Rhode Island						005
Hardwoods (Generally Deciduous)	AVIAN RESEARCH Reproduction Turkey	FW-26-P-4	WP-12-J-	21.1	8507	8606	
	Colorado						021
Hardwoods (Generally Deciduous)	FOREST WILDLIFE INVESTIGATIONS Stocking Turkey	W-63-R(SI)	3	8.0	8507	8606	
	Illinois						011
Hardwoods (Generally Deciduous)	STATEWIDE WILDLIFE RESEARCH Research techniques Turkey	W-26-R-17	36-G	12.0	8507	8606	
	Indiana						001
Hardwoods (Generally Deciduous)	STATEWIDE WILDLIFE RESEARCH Harvest Grouse/Turkey	W-26-R-17	16-G	34.1	8507	8606	
	Indiana						009
Hardwoods (Generally Deciduous)	WILDLIFE MODULAR PLAN OPTION Food habits Whitetail Deer/Turkey	WEP-100-2	409913	1.8	8507	8606	
	Maryland						027
Hardwoods (Generally Deciduous)	STATEWIDE WILDLIFE RESEARCH Harvest Turkey	W-127-R-4	40	81.0	8510	8609	
	Michigan						014
Hardwoods (Generally Deciduous)	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Harvest Turkey	W-13-R-40	76	17.3	8507	8606	
	Missouri						018
Hardwoods (Generally Deciduous)	WILDLIFE RESEARCH Stocking Turkey	W-75-R-28	7533	4.0	8507	8606	
	South Dakota						010
Hardwoods (Generally Deciduous)	WILDLIFE MANAGEMENT SURVEYS Populations Turkey	W-95-R-20	9505	15.0	8510	8703	
	South Dakota						024

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
		FW-26-P-4	WP2-J15	47.0	8507	8606	
Mixed Hardwoods and Conifers	AVIAN RESEARCH Habitats Turkey Colorado	W-47-8	XI	7.1	8507	8606	019
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE SURVEYS Harvest Turkey Georgia	W-45-17	T-S-I	24.6	8507	8606	012
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE MANAGEMENT Populations Turkey Kentucky	W-29-33	IV	24.3	8507	8606	002
Mixed Hardwoods and Conifers	STATEWIDE WILDLIFE INVESTIGATIONS Stocking Turkey Louisiana	W-13-R-40	7	33.2	8507	8606	003
Mixed Hardwoods and Conifers	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Life history Turkey Missouri	W-57-11	A3	30.0	8510	8609	007
Mixed Hardwoods and Conifers	WILDLIFE MANAGEMENT IN NORTH CAROLINA Stocking Turkey North Carolina	W-105-R-27	5	35.0	8507	8606	008
Mixed Hardwoods and Conifers	FOREST WILDLIFE RESEARCH PROJECT Stocking Turkey Ohio	W-80-R-25	5-2	9.8	8507	8606	010
Mixed Hardwoods and Conifers	BIG GAME INVESTIGATIONS Populations Turkey/Whitetail Deer Oklahoma	W-42-16	V	16.0	8507	8606	017
Mixed Hardwoods and Conifers	WILD TURKEY INVESTIGATIONS Stocking Turkey South Carolina	W-42-16	III	3.3	8507	8606	006
Mixed Hardwoods and Conifers	WILD TURKEY INVESTIGATIONS Populations Turkey South Carolina						008

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Rangeland	BIG GAME INVESTIGATIONS Food habits Cervids/Turkey	W-80-R-25	1-3	5.6	8507	8606	
	Oklahoma						009

SPRING 1986
SPECIES: COLUMBIFORMS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	FISH AND WILDLIFE INVESTIGATIONS Populations Columbiforms	FW-2-R-23	W-2-1&2	17 5	8510	8609	
	Guam						005
Forest Land	WILDLIFE SURVEYS AND INVENTORIES Basic survey Columbiforms	W-1-R-4	II	20.0	8510	8609	
	No. Mariana Isles						002
Forest Land	ENDANGERED BIRD RESEARCH Habitats Parrots/Columbiforms	W-10-4	III	32.7	8507	8606	
	Puerto Rico						002
General/Multiple Habitats	STUDIES ON RESIDENT GAME BIRDS Harvest Columbiforms	W-11-4	IV	36.5	8507	8606	
	Puerto Rico						003
General/Multiple Habitats	STUDIES ON RESIDENT GAME BIRDS Life history Columbiforms	W-11-4	III	12.9	8507	8606	
	Puerto Rico						004
General/Multiple Habitats	STUDIES ON RESIDENT GAME BIRDS Populations Columbiforms	W-11-4	II	32.3	8507	8606	
	Puerto Rico						005

SPRING 1986
SPECIES: MOURNING DOVE

CURRENT FEDERAL AID RESEARCH - WILDLIFE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Agricultural Land	STATEWIDE GAME MANAGEMENT SURVEYS Agriculture White Wing Dove/Mourning Dove Arizona	W-53-R-36	3-9	10.0	8507	8606	002
Agricultural Land	STATEWIDE WILDLIFE SURVEYS AND INVENTORIES Populations Pheasant/Mourning Dove/Grouse Idaho	W-170-R-10	II-1	34.1	8507	8606	017
Agricultural Land	STATEWIDE WILDLIFE INVESTIGATIONS Populations Mourning Dove Mississippi	W-48-33	IV	5.7	8507	8606	004
Agricultural Land	WILDLIFE INVESTIGATIONS Populations Mourning Dove Virginia	W-74-R-4	XIV	7.2	8507	8606	018
Conifers	WILDLIFE MODULAR PLAN OPTION Populations Mourning Dove Maryland	WEP-100	409922	0.9	8507	8606	001
Cropland and Pasture	COOPERATIVE WILDLIFE PROJECTS Behavior Mourning Dove Alabama	W-44-11	XV	38.1	8510	8609	010
Forest Land	WILDLIFE RESEARCH OR SURVEYS - UPLAND GAME INVESTIGATIONS Basic survey Snipe/Mourning Dove/White Wing Dove California	W-65-R-3	I	12.5	8507	8606	001
Forest Land	UPLAND WILDLIFE AND FUBEARER RESEARCH Populations Mourning Dove/Woodcock New Jersey	W-64-R-1	II	2.5	8508	8606	019
General/Multiple Habitats	STATEWIDE WILDLIFE INVESTIGATIONS Basic survey Mourning Dove Alabama	W-35-33	XIII	4.3	8510	8609	001
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS Populations Mourning Dove Georgia	W-47-8	X	2.8	8507	8606	021

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	STATEWIDE WILDLIFE INVESTIGATIONS Reproduction Mourning Dove	W-29-33	III	4.2	8507	8606	
	Louisiana						004
General/Multiple Habitats	GAME POPULATION TREND AND HARVEST SURVEY - CENSUS AND BANDING OF GAME BIRDS AND MAMMALS Reproduction Mourning Dove/Woodcock	W-35-R-28	III	8.8	8507	8606	
	Massachusetts						003
General/Multiple Habitats	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Populations Mourning Dove	W-13-R-40	21	14.6	8507	8606	
	Missouri						013
General/Multiple Habitats	GAME BIRD STUDIES Populations Mourning Dove	W-104-R-26	WP12-J6	3.6	8501	8512	
	New Mexico						002
General/Multiple Habitats	WILDLIFE MANAGEMENT IN NORTH CAROLINA Populations Mourning Dove	W-57-11	A2	2.0	8510	8609	
	North Carolina						006
General/Multiple Habitats	STATEWIDE WILDLIFE SURVEYS AND INVESTIGATIONS Populations Mourning Dove	W-67-R-26	D-V	4.2	8507	8606	
	North Dakota						021
General/Multiple Habitats	MIGRATORY BIRD STUDY Reproduction Mourning Dove	W-32-R-36	3-1	14.9	8507	8606	
	Oklahoma						003
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Populations Mourning Dove/Woodcock/Herons/Bitterns	W-23-R-29	I	19.0	8504	8603	
	Rhode Island						003
General/Multiple Habitats	MIGRATORY SHORE AND UPLAND GAME BIRD DENSITY, DISTRIBUTION, MOVEMENT, AND HARVEST Reproduction Mourning Dove	W-115-R-3	4	5.5	8503	8602	
	Texas						056
General/Multiple Habitats	MIGRATORY SHORE AND UPLAND GAME BIRD DENSITY, DISTRIBUTION, MOVEMENT, AND HARVEST Populations Mourning Dove	W-115-R-3	1	29.0	8503	8602	
	Texas						058

SPRING 1986
SPECIES: MOURNING DOVE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Not Applicable	WILDLIFE MODULAR PLAN OPTION Migration Woodcock/Mourning Dove Maryland	WEP-100-2	409923	7.8	8507	8606	011
Shrub-Brushland Range	STATEWIDE WILDLIFE PROGRAM Populations Mourning Dove Nevada	W-48-R-17	I-15	8.1	8507	8606	009

SPRING 1986
SPECIES: WHITE WING DOVE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Agricultural Land	STATEWIDE GAME MANAGEMENT SURVEYS Agriculture White Wing Dove/Mourning Dove Arizona	W-53-R-36	3-9	10.0	8507	8606	002
Forest Land	WILDLIFE RESEARCH OR SURVEYS - UPLAND GAME INVESTIGATIONS Basic survey Snipe/Mourning Dove/White Wing Dove California	W-65-R-3	I	12.5	8507	8606	001
General/Multiple Habitats	MIGRATORY SHORE AND UPLAND GAME BIRD DENSITY, DISTRIBUTION, MOVEMENT, AND HARVEST Populations White Wing Dove Texas	W-115-R-3	6	7.0	8503	8602	055
General/Multiple Habitats	MIGRATORY SHORE AND UPLAND GAME BIRD DENSITY, DISTRIBUTION, MOVEMENT, AND HARVEST Populations White Wing Dove Texas	W-115-R-3	2	29.0	8503	8602	060

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	LAW ENFORCEMENT STUDIES Basic survey Man	FW-26-P-3	WP1 J3	12.3	8407	8506	
	Colorado						003
General/Multiple Habitats	LAW ENFORCEMENT STUDIES Management techniques Man	FW-26-P-4	WP1 J 2	16.1	8507	8606	
	Colorado						014
General/Multiple Habitats	WILDLIFE INVESTIGATIONS Users Man	W-74-R-4	VI	14.8	8507	8606	
	Virginia						008
Not Applicable	STATEWIDE WILDLIFE RESEARCH Users Man	W-127-R-4	61	29.3	8510	8609	
	Michigan						008

SPRING 1986
SPECIES: FERAL ANIMALS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	WILDLIFE SURVEYS AND INVENTORIES Basic survey Bats/Cervids/Feral Animals	W-1-R-4	I	28.0	8510	8609	
	No. Mariana Isles						004
Rangeland	WILDLIFE RESEARCH OR SURVEYS - BIG GAME INVESTIGATIONS Basic survey Pronghorn/Feral Animals	W-65-R-3	I-6	2.3	8507	8606	
	California						015

SPRING 1986
SPECIES: FERAL PIGS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	FISH AND WILDLIFE INVESTIGATIONS Basic survey Feral Pigs Guam	FW-2-R-23	W-1-2	18.5	8510	8609	001
Mixed Hardwoods and Conifers	WILDLIFE MANAGEMENT OF NORTH CAROLINA Harvest Feral Pigs North Carolina	W-57-11	B5	1.0	8510	8609	011

SPRING 1986
SPECIES: FERAL DOG

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	FURBEARER INVESTIGATIONS - DOMESTIC ANIMAL AND FURBEARER RELATIONSHIPS Behavior Feral Dog/Furbearers/Domestic Sheep Vermont	W-45-R-6	III	0.6	8507	8606	017

SPRING 1986
SPECIES: DOMESTIC SHEEP

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	FURBEARER INVESTIGATIONS - DOMESTIC ANIMAL AND FURBEARER RELATIONSHIPS Behavior Feral Dog/Furbearers/Domestic Sheep Vermont	W-45-R-6	III	0.6	8507	8606	017

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Herbaceous Range	STATEWIDE WILDLIFE RESEARCH Food habits Cervids/Pronghorn/Upland Birds/Domestic Cattle	W-120-R-17	BG 11.0	28.0	8507	8606	
	Montana						010
Mixed Range	BIG GAME-LIVESTOCK RELATIONSHIP STUDY Habitats Mule Deer/Horses/Domestic Cattle	W-105-R-22	A-5c	24.0	8503	8602	
	Utah						009
Non-Forested (Marsh) /Everglades	WILDLIFE RESEARCH Plant control Domestic Cattle	W-75-R-28	7528	14.0	8507	8606	
	South Dakota						008
Shrub-Brushland Range	GAME RANGE RESTORATION STUDIES Plant production Hare/Rabbit/Pika/Cervids/Domestic Cattle	W-82-R-31	VII	9.0	8504	8603	
	Utah						029

SPRING 1986
SPECIES: PLANT/ANIMAL ECOLOGY

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Unclassified	VIRGIN ISLANDS FISH AND WILDLIFE PROGRAM Basic survey Plant/Animal Ecology	FW-4-1	II-B	3.4	8510	8609	
	Virgin Islands						003

CURRENT FEDERAL AID RESEARCH - WILDLIFE

SPRING 1986
SPECIES: NONSPECIES ORIENTED

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Laboratory (General)	STATEWIDE WILDLIFE RESEARCH Not applicable Nonspecies Oriented	W-127-R-4	81	81.8	8510	8609	
		Michigan					009
Not Applicable	WILDLIFE SURVEYS AND STATISTICAL SERVICES Research techniques Nonspecies Oriented	W-124-R-6	II	35.5	8510	8609	
		Michigan					002
Not Applicable	STATEWIDE WILDLIFE RESEARCH Management techniques Nonspecies Oriented	W-127-R-3	80	57.0	8510	8609	
		Michigan					004
Not Applicable	WILDLIFE INVESTIGATIONS Management techniques Nonspecies Oriented	W-23-R-29	VI	10.0	8504	8603	
		Rhode Island					007
Unclassified	ALASKA HUNTER EDUCATION PROGRAM Management techniques Nonspecies Oriented	W-18-HS-15		106.2	8507	8606	
		Alaska					001

SPRING 1986
SPECIES: BLACKBIRDS/STARLINGS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	PUERTO RICO ENDANGERED SPECIES PROGRAM Life history Blackbirds/Starlings	E-1-2	II	49.6	8507	8606	
		Puerto Rico					001

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Coastal Waters	WILDLIFE MODULAR PLAN OPTION Harvest Diving Ducks	WEP-100-2	409989	11.5	8507	8606	
	Maryland						013
Not Applicable	WILDLIFE MODULAR PLAN OPTION Harvest Diving Ducks	WEP-100-2	400685	7.2	8507	8606	
	Maryland						012
Wetlands/Riparian	STATEWIDE WILDLIFE RESEARCH Populations Diving Ducks	W-141-R-21	021	21.7	8507	8606	
	Wisconsin						034

SPRING 1986
SPECIES: GAME BIRDS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	GAME BIRD STUDIES Management techniques Game Birds	W-104-R-26	17-1	9.3	8501	8512	
	New Mexico						004
General/Multiple Habitats	GAME BIRD STUDIES Harvest Game Birds	W-104-R-26	WP11-J1	9.7	8501	8512	
	New Mexico						007

SPRING 1986
SPECIES: GRUIFORMS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Wetlands/Riparian	WILDLIFE MODULAR PLAN OPTION Basic survey Herons/Bitterns/Gruiforms	WEP-100-2	400673	58.1	8507	8606	
	Maryland						046

SPRING 1986
SPECIES: HORSES

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Mixed Range	BIG GAME-LIVESTOCK RELATIONSHIP STUDY Food production or provision Mule Deer/Horses	W-105-R-22	A-5e	9.8	8503	8602	
		Utah					007
Mixed Range	BIG GAME-LIVESTOCK RELATIONSHIP STUDY Habitats Mule Deer/Horses/Domestic Cattle	W-105-R-22	A-5c	24.0	8503	8602	
		Utah					009

SPRING 1986
SPECIES: MAMMALS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Agricultural Land	WILDLIFE INVESTIGATIONS Diseases & parasites Mammals	W-23-R-29	IX	27.0	8504	8603	
		Rhode Island					009
Indoor Laboratory/Facility	WILDLIFE HEALTH PROJECT Diseases & parasites Mammals/All Birds	W-62-R-2	IV	2.4	8505	8604	
		New Jersey					013

SPRING 1986
SPECIES: MARSUPIALS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Forest Land	STATEWIDE GAME RESEARCH SURVEYS AND INVENTORIES Life history Marsupials	W-17-R-11	VII	7.1	8507	8606	
		Hawaii					005

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	STATEWIDE WILDLIFE RESEARCH Harvest Waterfowl/Migratory Game Birds	W-26-R-17	17-1	19.7	8507	8606	
	Indiana						008

SPRING 1986
SPECIES: MUSKRAT

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
General/Multiple Habitats	UPLAND WILDLIFE AND FURBEARER RESEARCH Populations Raccoon/Fox/Muskrat	W-64-R-1	VI	10.9	8508	8607	
	New Jersey						024

SPRING 1986
SPECIES: PLANT ECOLOGY

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
	RARE, ENDANGERED PLANTS - RESEARCH AND MANAGEMENT Basic survey Plant Ecology	E-2	E-2-5	43.3	8507	8606	
	Washington						003
Forest Land	RARE AND ENDANGERED PLANTS RESEARCH Basic survey Plant Ecology	EP-1		10.0	8506	8601	
	Oregon						001
Non-Forested (Marsh) /Everglades	STATEWIDE WILDLIFE RESEARCH Plant control Plant Ecology	W-141-R-21	131	17.0	8507	8606	
	Wisconsin						032

SPRING 1986
SPECIES: UNGULATES-EVEN-TOE

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE		PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
			W-22-4	XIVB-14.	96.5	8411	8506	
	ALASKA WILDLIFE RESEARCH AND MANAGEMENT Habitats Caribou/Ungulates-Even-Toe	Alaska						029

SPRING 1986
SPECIES: UPLAND BIRDS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE		PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
			W-48-R-17	IX-2	3.7	8507	8606	
Forest Land	STATEWIDE WILDLIFE PROGRAM Stocking Upland Birds	Nevada						015
			W-13-R-40	B6	26.6	8507	8606	
Hardwoods (Generally Deciduous)	WILDLIFE MANAGEMENT PLANNING AND RESEARCH Planning Upland Birds/Upland Game/Habitats	Missouri						024
			W-120-R-17	BG 11.0	28.0	8507	8606	
Herbaceous Range	STATEWIDE WILDLIFE RESEARCH Food habits Cervids/Pronghorn/Upland Birds/Domestic Cattle	Montana						010
			W-32-R-36	2-1	17.4	8507	8606	
Wetlands/Riparian	MIGRATORY BIRD STUDY Harvest Waterfowl/Big Game/Upland Birds	Oklahoma						004

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Hardwoods (Generally Deciduous)	ENDANGERED SPECIES RESEARCH Habitats Mollusks	SE-1-4	I	8.0	8507	8612	
	Iowa						001
Hardwoods (Generally Deciduous)	ENDANGERED SPECIES RESEARCH Habitats Mollusks/Terrestrial Plants	SE-1-5	VIII	60.3	8507	8612	
	Iowa						005

SPRING 1986
SPECIES: MOLLUSKS

HABITAT TYPE	TITLE/TYPE/SPECIES/STATE	PROJECT NUMBER	STUDY	COST 1000'S	STRT DATE	END DATE	REF NO.
Water (Multi-Aquatic)	ENDANGERED SPECIES Systematics Mollusks	E-1-3	II	4.0	8504	8603	
	West Virginia						001

Section II

Project Objectives

Alabama

001 Mourning Dove

1. To determine changes in breeding population of mourning doves (call-count survey).

MNGT IMP Provide information on the abundance, condition or factors that affect wildlife populations so as to develop population and habitat management practices.

002 Game Species

1. To determine total kill, hunter pressure, man-days of use and related data from all WMA's.

MNGT IMP Provide information on public use and demand for wildlife to aid in determination of programs or actions to meet the demand.

PRNC INV William F. Kelly.

003 Whitetail Deer

1. To measure and evaluate deer harvest on Alabama's wildlife management areas.
2. To monitor the condition of deer in Alabama herds.

MNGT IMP Provide information on public use and demand for wildlife and will aid in the determination of programs or actions to meet the demand.

PRNC INV David K. Nelson.

004 Waterfowl

1. To monitor waterfowl harvest trends and hunter activity on the major waterfowl wintering areas within Alabama.
2. To determine periodic and annual variations in distribution and abundance of waterfowl.

MNGT IMP To provide information on the abundance, condition, or factors that affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Bruce Johnson.

005 Whitetail Deer

1. To test simulation models for selected Alabama deer herds.

MNGT IMP Provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Keith Guyse.

006 Furbearers

1. To index annual trends in statewide furbearer population.

MNGT IMP Provide information on the abundance, condition, or factors which affect wildlife population to develop populaton and habitat management practices.

PRNC INV Michael Sievering.

007 All Wildlife

1. To determine the cause of outbreaks of disease in wildlife and to devise controls.

MNGT IMP Information from this study will be used to overcome or moderate biological limiting factors that affect the growth and well-being of wildlife populations.

008 Tree Ducks

1. To quantify and statistically compare temporal and spatial changes in habitat use by postbreeding wood ducks in Alabama.
2. Determine the timing and extent of dispersal by postbreeding and locally produced wood ducks in Alabama.

MNGT IMP To provide information on the factors that affect wildlife populations so as to develop population and habitat management practices.

PRNC INV John D. Thompson.

009 Quail

1. Investigate the reproductive ecology of the bobwhite quail using radio telemetry techniques with emphasis on the following: 1) percentage of successful nests and nesting habitat, 2) extent and causes of nest losses and the importance of renesting, 3) extent and causes of mortality of young and adult female quail, 4) range size and habitat types used by hens and broods and survival rates between important habitat types.

MNGT IMP To overcome or moderate biological limiting factors that affect wildlife populations so as to develop management practices.

PRNC INV Dan W. Speake.

010 Mourning Dove

1. To determine the daily activity patterns of adult and hatchling-year mourning doves prior to, and during, the Alabama dove hunting season.
2. To determine the local movements and feeding habitats used by adult and hatchling-year doves prior to and during the dove hunting season.

MNGT IMP Provide informaton on factors which affect wildlife populations and develop management practices.

PRNC INV Dr. Ralph Mirarchi.

Alabama

011 Black Bear

1. To determine the black bear population distribution and abundance in Southwestern Alabama.

MNGT IMP To provide information on abundance of wildlife populations in order to develop management practices.

PRNC INV Dr. Julian L. Dusi.

012 Tree Ducks

1. To determine the percentage of wood duck hens in Alabama that produce second broods and evaluate the contribution of second broods to productivity of wood duck populations.

MNGT IMP Provide information on abundance, condition or factors that affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Tom E. Moormar.

013 Whitetail Deer

1. To determine growth and antler development of male white-tailed deer fawns after one year on optimum rations.

MNGT IMP To overcome or moderate biological limiting factors that affect the growth or well-being of wildlife populations.

PRNC INV Keith Cousey.

014 Hawks/Eagles/Falcons

1. To determine the differences in behavior of wild captured and captive-reared eaglets during hacking and post-hacking monitoring.

MNGT IMP Result in the introduction of endangered species into suitable habitat to restore populations.

PRNC INV Joe Myers

TELE 205-261-3469.

001 Nonspecies Oriented

1. Program administration and services.
2. Staff and volunteer instructor development.
3. Student recruitment and training.
4. Instructor, student and program evaluation.

MNGT IMP This project will provide information to the public and others in understanding and utilizing the Hunter Education Program.

PRNC INV Jack Alexander

TELE 907/267-2179.

002 Blacktail Deer

1. To evaluate seasonal distribution and determine habitat utilization and preference of Sitka black-tailed deer within natural (unlogged) and modified (logged) habitats.

PRNC INV John W. Schoen

TELE 907/465-4265.

003 Moose

1. Determine if, when, and how moose modify their traditional home range after a wildfire and incorporate findings into Alaska's fire management program.

PRNC INV William C. Gasaway

TELE 907/452-1531.

004 Moose

1. To test and evaluate techniques that are potentially useful fo determining population status movements and other factors necessary for management of moose.

PRNC INV Albert W. Franzmann

TELE 907/262-9368.

005 Moose

1. To determine baselines by sex, age, season, reproductive status, area, drug used, excitability and condition for blood, hair and milk parameters in moose and to apply these criteria as indicators of nutritional and general conditon of moose in various moose populations over the state.
2. To develop a formulated diet, meeting the essential nutrient requirements of captive moose.
3. To relate hair element levels and moose mineral metabolism to digestable nutrients in common moose forage species.
4. To determine nutritional values and digestibilities of the common moose forage species.

5. To determine optimum crude protein and gross energy requirements for various sex and age classes of captive moose on a seasonal basis and to monitor the effects of various levels of nutrient quality on mooseblood parameters.
6. To compare and contrast the ability of captive moose to digest and assimilate a formulated diet versus four major food items consumed by wild moose either singly or in combination during winter.

PRNC INV Albert W. Franzmann

TELE 907/262-9368.

006 Diseases, Predators, Big Game

1. To determine, by analysis of blood serum, if various wildlife species throughout the States have infectious diseases.
2. To make disease information readily available to managers by computerization of all information collected from past serological surveys.

PRNC INV Randall L. Zarnke

TELE 907/452-1531.

007 Muskox

1. To compare habitat use and forage preference of the Sadlerochit herd with those of other recently introduced muskox herds.

PRNC INV Constance O'Brien, Graduate Student

TELE 907/479-7673.

008 Blacktail Deer

1. To determine seasonal habitat use patterns of Sitka black-tailed deer inhabiting the island of Prince William Sound.
2. To describe the most important aspects of habitats used by deer.

PRNC INV Neil Shishido, Graduate Student

TELE 907/424-3215.

009 Wild Sheep

1. To determine initial dall sheep production, yearling recruitment, survival, reproductive frequency, forage resources and mortality in the low-quality Dry Creek population and these same parameters in the high quality Sheep Creek population.

PRNC INV Wayne E. Heimer

TELE 907/452-1531.

Alaska

010 Brown Bear

1. To determime weekly and seasonal movement patterns and habitat utilization by brown bears in southeastern Alaska, particularly in respect to activities associated with mining and/or logging. In addition, to locate and describe denning sites and determine reproductive rates and relate these to habitat and harvest levels.

PRNC INV John Schoen

TELE 307/465-4265.

011 Grizzly Bear

1. To determine population density, structure, reproductive ability, and movements of grizzly bears in the eastern Alaska range.

PRNC INV Harry V. Reynolds

TELE 907/452-1531.

012 Caribou

1. To determine seasonal/annual changes in the distribution and group sex/age composition of caribou in the vicinity of the Pipeline Corridor, with special interest in the identification and assessment of local abnormalities.
2. To determine the location and direction of Corridor crossings by Caribou.
3. To characterize the behavioral responses of caribou to the haul road, pipeline(s), traffic, and human activity.

PRNC INV Raymond D. Cameron

TELE 907/452-1531.

013 Caribou

1. To determine the demography of the Delta Caribou Herd under varying rates of natural mortality and human harvests.

PRNC INV James L. Davis

TELE 907/452-1531.

014 Caribou

1. To determine the productivity and seasonal distribution of the CAH.

PRNC INV Raymond D. Cameron

TELE 907/452-1531.

Alaska

015 Caribou

1. To describe annual variations in the distribution of CAH caribou on their calving grounds, with special reference to calving activity in vicinity of the KDA.
2. To determine between-year differences in the distribution, movements, and sex/age composition of caribou within or near the KDA during summer.
3. To determine the location or road/pipeline crossings.

PRNC INV Raymond D. Cameron

TELE 907/452-1531.

016 Lynx

1. To develop criteria for aerially identifying lynx tracks in snow.
2. To determine the sightability of lynx trails in snow from the air and ground in different habitats.
3. To obtain information on movements, home range, and dispersal of individual lynx.
4. To determine travel routes in relation to habitat.
5. To assess the timing and extent of movements in relation to season, weather, and snow conditions.
6. To determine the actual population density and productivity of a lynx population.
7. To develop and test various types of aerial and ground survey techniques.
8. Develop a method to determine lynx abundance in relative and/or absolute terms.

PRNC INV Robert O. Stephenson

TELE 907/452-1531.

017 Muskox

1. To characterize muskox nursing frequence and duration in relation to body condition of the cow and milk intake.
2. To examine variability of nursing behavior under differing range conditions.

PRNC INV Ann Tiplady

TELE 907/452-1531.

018 Muskox

1. To provide basic information on genetic diversity of the muskox.
2. To examine the effects of inbreeding on genotypes frenquencies in the muskox.
3. To analyze the genetic resources of several muskox populations to provide information pertinent to the management of Alaskan populations.
4. To compare the genetic diversity of muskox with that of other large undulates.
5. To investigate seasonal variation in muskox blood proteins.

PRNC INV Claire Fleishman

TELE 907/474-7673.

O19 Black Bear

1. To determine the population density, age structure, productivity, and survival of the black bear populations within the: (1) Moose Research Center (MRC), (2) Swanson River and Finger Lake study areas within the 1969 burn.
2. To evaluate seasonal, temporal, and spatial aspects of bear movements as they relate to food abundance within the two study areas.
3. To compare and contrast population density, age structure, productivity, survival and movements between the two study areas.

PRNC INV Charles C. Schwartz

TELE 907/262-9368.

O20 Caribou

1. To determine the size and productivity of the Porcupine Caribou Herd.

PRNC INV Raymond D. Cameron

TELE 907/452-1531.

O21 Blacktail Deer

1. To investigate the reprouductive potential of Sitka black-tailed deer in Alaska.
2. To determine age-specific ovulation and fertilization rates.
3. To determine the importance of each of four age classes to population productivity.
4. To determine the age of first breeding and the age at which fertility begins to decline (reproductive senescence).

PRNC INV Ronald E. Ball

TELE 907/465-4265.

O22 Moose

1. To determine if either predation or habitat limits this low density moose population; if predation is limiting, determine moose population; if limiting, determine how much control managers need to exert over wolf and bear populations to allow a low density moose population to rapidly grow; to correlate moose/predator ratios and moose population dynamics; and to apply findings to the management of other populations in Interior Alaska, as appropriate.

PRNC INV Rodney D. Beortje

TELE 907/465-1531.

O23 Wolf, Brown Bear, Moose

1. To prepare a monograph on past Research studies involving wolves, brown bear, and moose in southcentral Alaska.

Alaska

PRNC INV Warren Ballard

TELE 907/833-3461.

024 Caribou

1. To determine the status, distribution, movements, and limiting factors of the Fortymile Caribou herd, 1983-1987.
2. To census the Fortymile Caribou Herd (FCH) in 1984, 1986 and 1988.
3. To determine the natality rate and time of peak calf production of the FCH annually, 1984-1988.
4. To determine when major mortality occurs to both calves and adults, and to characterize caribou dying from natural causes anually, 1984-88.
5. To determine patterns of range use of the FCH annually, 1984-88.
6. To determine caribou/predator ratios in the range of the range of the FCH, 1984-88.

PRNC INV James L. Davis

TELE 907/452-1531.

025 Muskox

1. To determine population size and herd composition of muskoxen on the Seward Peninsula.
2. To determine patterns of dispersal and habitat selection of muskoxen on the Seward Peninsula.
3. To determine herd stability and interchange between established herds.

PRNC INV Carl A. Grauvogel

TELE 907/443-2825.

026 Otter, Moose, Caribou

1. To assess the levels of vertebrate herbivory, the influence of different vertebrate herbivores and plant response to vertebrate herbivory in willow communities on the Seward Peninsula.
2. To assess the importance of willow communities to herbivores (primarily moose, muskoxen and reindeer), on the Seward Peninsula.

PRNC INV David R. Klein

TELE 907/465-4190.

027 Otter

1. Determine seasonal use of habitats, distriburtion, and movement patterns of river otters in old growth forests and clear-cut areas at Kelp Bay, Alaska.
2. Determine habitat characteristics of river otter natal den sites.

PRNC INV Philip S. Gipson

TELE 907/479-7673.

028 Caribou

1. To evaluate the hypothesis that wolf predation is suppressing deer population growth in Game management Unit 3.
2. To estimate deer density in the study area.
3. To estimate wolf numbers in the study area.
4. To determine deer faun: adult ratios on a seasonal basis.
5. To determine historic distribution and population trends in deer and wolves on an island-specific basis.
6. To evaluate methods of reducing wolf deer ratios.
7. To monitor response of deer populations to reduced wolf predation.

PRNC INV Christian A. Smith

TELE 907/225-2475.

029 Caribou, Ungulates-Even-Toe

1. To determine the special and trophic relationships of wolves and deer in natural and altered habitats in Southeast Alaska.
2. To determine size, distribution, and stability of wolf packs.
3. To determine activity areas, hunting patterns and deer-killing rates for specific packs.
4. To determine food habits of selected packs and the overall wolf population.
5. To determine relative abundance of major prey species within select pack territories.
6. To determine deer density relative to wolf pack territory borders and habitat characteristics.
7. To monitor deer population trends in various habitat areas and wolf pack territories.

PRNC INV Christian A. Smith

TELE 907/465-2475.

030 Caribou

1. To evaluate the degree to which the seasonal movements of individual adult caribou are influenced by their first-year movements as calves.
2. To identify and describe any disturbance-related alteration of seasonal distribution and movements.
3. To determine sexual differences in the development of movement and dispersal patterns, social relationships, habitat preferences and range fidelity.

PRNC INV Raymond D. Cameron

TELE 907/465-4190.

031 Muskox

1. To provide basic information on genetic diversity of the muskox.
2. To examine the effects of inbreeding on genotype frequencies in the muskox.
3. To analyze the genetic resources of several muskox populations to provide information pertinent to the management of Alaskan populations.
4. To compare the genetic diversity of muskox with that of other large undulates.
5. To investigate seasonal variation in muskox blood proteins.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

Alaska

PRNC INV Claire Fleischman

TELE 907/465-4190.

032 Blacktail Deer

1. To evaluate the hypothesis that wolf predation is suppressing deer population growth in Game management Unit 3. 1. Estimate deer density in the study area. 2. Estimate wolf numbers in the study area. 3. Determine deer faun; adult ratios on a seasonal basis. 4. Determine historic distribution and population trends in deer and wolves on an island-specific basis. 5. Monitor response of deer populations to reduce wolf predation.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Chris Smith

TELE 907/225-2475.

033 Wolf, Blacktail Deer

1. Determine size, distribution, and stability of wolf packs.
2. Determine activity areas, hunting pattern and deer-killing rates for specific packs.
3. Determine food habits of selected packs and the overall wolf population.
4. Determine relative abundance of major prey species within select pack territories.
5. Determine deer density relative to wolf pack territory borders and habitat characteristics.
6. Monitor deer population trends in various habitat areas and wolf pack territories.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Chris Smith

TELE 907/225-2475.

034 Lynx

1. To develop criteria for aerially identifying lynx tracks in the snow.
2. To determine the sightability of lynx trails in snow from the air and ground in different habitats
3. To obtain information on movements, home range, and dispersal of individual lynx.
4. To determine travel routes in relation to habitat.
5. To assess the timing and extent of movements in relation to season, weather and snow conditions.
6. To determine the actual population density and productivity of a lynx population.
7. To develop and test various types of aerial and ground survey techniques.
8. To develop a method to determine lynx abundance in relative and/or absolute terms.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Robert O. Stephenson

TELE 907/452-1531.

035 Mountain Goat

1. Prepare a manuscript for submission to a referred journal detailing the findings from the previous years of work.
2. Complete a detailed study plan for the next segment of Dall sheep research in Interior Alaska.
3. Gather additional information which will enhance the utility of the current data base in planning new work.

MNGT IMP This project will provide information to assist the public, rsource managers, and others in interpreting understanding and utilizing research results.

PRNC INV Wayne Heimer

TELE 907/452-1531.

036 Caribou

1. Describe annual variations in the distribution of CAH caribou on their calving grounds, with special reference to calving activity in the vicinity of the KDA.
2. Determine between-year differences in the distribution, movements, and sex/age composition of caribou within or near the KDA during summer.
3. Determine the location of road/ pipeline crossings.
4. Characterize the responses of caribou to local structures and disturbances.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Raymond D. Cameron

TELE 907/452-1531.

037 Caribou

1. Evaluate the degree to which the seasonal movements of individual adult caribou are influenced by their first-year movements as calves.
2. To indentify and describe any disturbance-related alteration of seasonal distribution and movements.
3. Determine sexual differences in the development of movement and dispersal patterns, social relationships, nabitat preferences, and range fidelity.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Raymond D. Cameron

TELE 907/452-1531.

038 Caribou

Alaska

1. To census the Fortymile Caribou Herd (FCH) in 1984, 1986, 1988.
2. Determine the natality rate and time of peak calf production of the FCH annually, 1984-88.
3. Determine when major mortality occurs to both calves and adults, and to characterize caribou dying from natural causes annually, 1985-88.
4. Determine patterns of range use of the FCH annually, 1984-88.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV James Davis

TELE 907/452-1531.

039 Moose

1. To determine a formulated diet meeting the essential status, area, drug used, excitability and condition for blood, hair and milk parameters in moose and to apply these criteria as indicators of nutritional and general condition of moose in various moose populations over the state.
2. To develop a formulated diet meeting the meeting the essential nutrient requirements of captive moose.
3. To relate hair element levels and moose mineral mineral metabolism to digestable nutrients in common moose forage species.
4. To determine optimum crude protein and gross energy requirements for various sex and age classes of captive moose on a seasonal bases and to monitor the effects of various levels of nutrient quality on moose
5. To compare and contrast the ability of captive moose to digest and ,
6. To compare and contrast the ability of captive moose to digest and assimilate a formulated diet versus four major food items consumed by wild moose either singly or in combination during winter.
7. In cooperaton with the Denver Wildlife Research Center, to develop a basis for quantifying the capacity of the Kenai National Moose Range to support moose.

MNGT IMP This project will be used to overcome, or moderate biological limiting factors that affect the growth or well-being of wildlife populations.

PRNC INV Albert Franzmann

TELE 907/262-9368.

040 All Wildlife

1. To determine, by analysis of blood serum, if various wildlife species throughout the state have infectious diseases.
2. To make disease information readily available to managers by computerization of all information collected from past serological surveys.

MNGT IMP This project will be used to overcome, or moderate biological limiting factors that affect the growth or well-being of wildlife populations.

PRNC INV Randal Zarnke

TELE 907/452-1531.

041 Blacktail Deer

1. Determine the age-specific ovulatin and fertilization rates of Black- tailed Sitka deer.
2. Determine the importance of each of four age classes to population productivity.
3. Determine the age of the first breeding and the age at which fertility begins to decline (reproductive senescence).

MNGT IMP This project will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Loyal Johnson

TELE 907/747-5449.

042 Grizzly Bear

1. To quantatively relate changes in harvest rates of grizzly bears to their population dynamics, especially population size, structure, productivity, survival, emigration and immigration.

MNGT IMP This project will provide information on the abundance, conditions, factors that affect wildlife populations to develop population and habitat management practices.

PRNC INV Harry Reynolds

TELE 907/452-1531.

043 Caribou

1. Data to be collected annually (years 1-5). (The following will be accomplished by the Department's Survey and Inventory program and/or by this research project).
2. Data will be collected during 1 or more years to test hypotheses.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV James Davis

TELE 907/452-1531.

044 Moose

1. To determine if either predation or habitat limits this low density moose population; if predation is limiting, determine how much control managers need to exert over wolf and bear populations to allow a low density moose population to rapidly grow.
2. To correlate moose/predator ratios and moose population dynamics.
3. Apply findings to the management of other populations in interior Alaska as appropriate.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV William C. Gasaway

TELE 907/452-1531.

Alaska

045 Moose

1. To test and evaluate techniques that are potentially useful for determining population status movements and other factors necessary for management of moose.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Albert W. Franzmann

TELE 907/262-9368.

046 Brown Bear

1. To determine weekly and seasonal movement patterns and habitat utilization by brown bears in Southeast Alaska, particularly in respect to activities associated with mining and/or logging. In addition, to locate and describe denning sites and determine reproductive rates and harvest levels.

MNGT IMP This project will be used to overcome, or moderate biological limiting factors that affect the growth or well-being of wildlife populations.

PRNC INV John Schoen

TELE 907/465-4265.

047 Muskox

1. To characterize muskox nursing frequence and duration in relation to body condition of the cow and milk intake.
2. To examine variability of nursing behavior under differing range conditions.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Ann Tiplady

TELE 907/452-1531.

048 Muskox

1. To determine population size and herd composition of muskoxen on the Sewars Peninsula.
2. To determine pattern of dispersal and habitat selection of muskoxen on the Seward Peninsula.
3. To determine herd stability and interchange between established herds.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Carl A. Grauvogelt

TELE 907/443-2825.

049 Caribou

1. To determine seasonal distribution of range use in relation to vegetation types present.
2. To determine patterns of forage utilization within vegetation types.
3. To determine foraging efficiency as reflected in daily activity budgets.
4. To determine the role of snow in limiting access to forage.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV David R. Klein, Leader Alaska Cooperative Wildlife Research Unit.

050 Muskox, Moose, Caribou

1. To assess the levels of vertebrate herbivory, the influence of different vertebrate herbivores and plant response to vertebrate herbivory in willow communities on the Seward Peninsula.
2. To assess the importance of willow communities to herbivores (primarily moose, muskoxen, reindeer) on the Seward Peninsula.

MNGT IMP This project will result in the protection, development, or improvement of wildlife habitat to sustain or enhance those populations.

PRNC INV David R. Klein.

051 Muskox

1. Compare habitat use and forage preference of the Sadlerochit herd with those of other recently introduced muskox herds.

MNGT IMP This project will result in the protection, development, or improvement of wildlife habitat to sustain or enhance those populations.

PRNC INV Constance O'Brien

TELE 907/479-7673.

052 Black Bear

1. To determine the population density, age structure, productivity, and survival of the black bear populations within the: (1) Moose Research Center (MRC) (2) Swanson R. and Finger Lakes study areas within the 1969 burn.
2. To evaluate seasonal, temporal, and spatial aspects of bear movements as they relate to food abundance within the two study areas.
3. To compare and contrast population density, age structure, productivity, survival and movements between the two study areas.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Charles C. Schwartz

TELE 907/262-9368.

Alaska

053 Caribou

1. Determine the size and productivity of the Porcupine Caribou Herd.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Kenneth R. Whitten

TELE 907/452-1531.

American Samoa

001 All Wildlife

1. To protect and enhance the wildlife resources and terrestrial environments of American Samoa.

MNGT IMP Provide information/advice to other entities of the Government of American Samoa on land developments and uses for the purpose of avoiding or minimizing deleterious effects on wildlife.

PRNC INV Ray Tulafono

TELE 684-633-4456/5102.

002 All Wildlife

1. To monitor subsistence, recreational, and commercial hunting throughout American Samoa to assess impacts on major target species and develop wildlife resource management regulations.

MNGT IMP Secure information for the purpose of developing appropriate strategies for managing the hunted wildlife species on the Island of American Samoa

PRNC INV Ray Tulafono

TELE 684-633-4456/5102.

003 All Wildlife

1. To enable timely research and analysis of specific factors affecting the protection and management of wildlife resources and habitats on American Samoa.

MNGT IMP Secure information for the purpose of aiding other survey/inventory efforts in carrying out management and monitoring systems on the Islands of American Samoa

PRNC INV Ray Tulafono

TELE 684-633-4456/5102.

004 Bats, Nongame Birds

1. To assess the status of wildlife resource and its habitat on American Samoa since the 1975-76 baseline survey.
2. To develop resource and habitat protection recommendations.

MNGT IMP Secure information for the purpose of developing appropriate strategies for managing (protecting) the fruit bat and avi fauna on the Island of American Samoa.

PRNC INV Ray Tulafono

TELE 684-633-4456/5102.

Arizona

001 Turkey

1. To establish populations of races of wild turkey endemic to Arizona in areas of suitable habitat.

MNGT IMP This project will result in the introduction of wildlife species into suitable habitats to restore populations.

PRNC INV David Brown

TELE 602/942-3000.

002 White Wing Dove, Mourning Dove

1. Determine if the spatial relationship of nesting habitats and cultivated crops affect mourning and white-winged dove productivity.
2. Determine rate of cultivated crops used by mourning and white-winged doves relative to phenological stage of crops.

MNGT IMP This project will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV Ron Engel-Wilson

TELE 602/942-3000.

003 Wild Sheep

1. To establish populations of desert bighorn sheep in areas of suitable habitat in Arizona.

MNGT IMP This project will result in the introduction of wildlife species into suitable habitats to restore populations.

PRNC INV David Brown

TELE 602/942-3000.

004 Pronghorn

1. To establish populations of pronghorn antelope of the subspecies Antilocopra americana americana and A. a. Mexicana in areas of suitable habitat in Arizona.
2. To evaluate post-release success of reintroduced populations of pronghorn antelope in Arizona.

MNGT IMP This project will result in the introduction of wildlife species into suitable habitats to restore populations.

PRNC INV David Brown

TELE 602/942-3000.

1. To establish populations of javelina in areas of suitable habitat in Arizona.

MNGT IMP This project will result in the introduction of wildlife species into suitable habitats to restore populations.

PRNC INV Paul Webb

TELE 602/942-3000.

006 Nongame Birds, Tree Squirrel, Whitetail Deer

1. Complete and publish manuscripts currently under review.

MNGT IMP This project will provide information to the public about work completed under PR funding.

PRNC INV David Brown

TELE 602/942-3000.

007 Game Species

1. To estimate population trends and/or numbers and composition of game animals Arizona.
2. To determine recommendations for hunting and trapping seasons, bag limits and permit numbers.
3. To inform public of game hunting opportunities.
4. To determine game harvest.
5. To analyze data and prepare reports.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Paul Webb

TELE 602/942-3000.

008 Furbearers

1. To determine distribution, relative abundance, population and harvest trends of mammalian predators and furbearers in Arizona.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV John Phelps

TELE 602/942-3000.

009 Canada Geese

1. To determine the distribution and migration pattern of resident Canada geese in Arizona.

Arizona

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Berlinski

TELE 602/942-3000.

010 Big Game

1. Coordinate wildlife disease studies and relate findings to big game population levels - management.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV David E. Brown

TELE 602/942-3000.

011 Waterfowl

1. To determine the availability of expanded lead shot to waterfowl and rate of ingestion of expanded lead shot by waterfowl.

MNGT IMP Results of this project be used to overcome, or moderate biological limiting factors that affect the growth or well-being of wildlife populations.

PRNC INV David Brown

TELE 602/942-3000.

012 Canada Geese

1. To determine the rate of mortality due to hunting of the Canada Goose population wintering at Roosevelt Lake.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV David Brown

TELE 602/942-3000.

013 All Wildlife

1. To determine the impact of human activity on the abundance of small game and non-game birds and mammals on lands managed by the Game and Fish Department along the Gila River.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife

PRNC INV David Brown

TELE 602/942-3000.

O14 Waterfowl

1. To determine the geographical distribution of the hunter harvest of ducks that nest or are produced in Arizona.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV David Brown

TELE 602/942-3000.

O15 Big Game

1. To develop guidelines and standardized procedures for the management of big game species in Arizona.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV David Brown

TELE 602/942-3000.

O16 Mountain Lion

1. To assess cattle losses to mountain lions as they relate to ranch husbandry practices, lion density, alternate prey densities, and habitat type.

PRNC INV Harley G. Shaw

TELE 602/942-3000.

O17 Elk

1. To determine the feasibility and need for evaluating the effects of current and proposed timber management practices on site selection by Arizona elk herds.

PRNC INV Richard Brown

TELE 602/942-3000.

O18 Pronghorn

Arizona

1. To identify and locate pronghorn habitats statewide.
2. To describe the characteristics of seasonal pronghorn habitats.
3. To relate habitat characteristics to the physiological behavioral needs of pronghorn.

PRNC INV Don Neff

TELE 602/942-3000.

019 Turkey

1. To determine the impact of harvest of old-growth timber on Merriam's turkey populations.

PRNC INV Harley G. Shaw

TELE 602/942-3000.

020 Mule Deer, Whitetail Deer

1. Conduct a thorough analysis of survey and harvest data to see if widening sex ratios in mule deer and white-tailed deer populations.

PRNC INV Gerald I. Day

TELE 602/942-3000.

021 Mule Deer

1. To determine causes of post-hunting season mortality in the North Kaibab mule deer population.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Clay McCulloch.

022 Wild Sheep

1. To determine population characteristics, spatial distribution and habitat selection of desert bighorns relocated and released at Aravaipa Canyon, Goat Mountain and Virgin Mountains.
2. To determine the number of years needed to establish bighorn populations with a sustained huntable surplus of adult rams.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population population and habitat management practices.

PRNC INV Harley Shaw

TELE 602/636-2131.

Arizona

023 Mule Deer

1. To determine if extreme weather conditions on North Kaibab winter range are correlated with juvenile deer mortality, yearling buck growth and summer adult herd size.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and haitat management practices.

PRNC INV C. Y. McColloch

TELE 602/942-3000.

024 Black Bear

1. To determine density, sex ratio and age composition of a northern Arizona black bear population.
2. To determine activity patterns, daily movements, and home ranges of various sex and age classes of bears in a northern Arizona black bear population.
3. To determine reproductive and harvest rates of a northern Arizona black bear population.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV A. LeCount.

025 Mule Deer

1. Determine effect of two hunt prescriptions (5 hunters/mi2 and 1 hunter/mi2) on sex and age composition and density of desert mule deer herd.
2. Determine hunter opinion towards the two hunt prescriptions.
3. Determine hunter behavior during the two types of hunts.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Ronald Horejsi.

026 Mule Deer, White-tail Deer

1. Conduct a thorough analysis of survey and harvest data to see if widening sex ratios are a problem in mule deer and white-tailed deer populations.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Gerald I. Day

TELE 602/942-3000.

027 Mountain Lion

Arizona

1. To assess cattle losses to mountain lions as they relate to ranch husbandry practices, lion density, alternate prey densities, and habitat type.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Harley G. Shaw

TELE 602/942-3000.

028 Turkey

1. To determine the impact of harvest of old-growth timber on Merriam turkey populations.

MNGT IMP This study will provide information on the abundance, conditon, or factors which affect wildlife populations to develop population and habitat management practices

PRNC INV Harley G. Shaw

TELE 602/942-3000.

029 Pronghorn

1. To identify and locate pronghorn habitat statewide.
2. To describe the characteristics of seasonal pronghorn habitat.
3. To relate habitat characteristics to the physiological behavioral needs of pronghorn.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Don Neff

TELE 602/942-3000

030 Elk

1. To determine the feasibility and need for evaluating the effects of current and proposed timber management practices on site selection by Arizona elk herds.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Richard Brown

TELE 602/942-3000.

031 Elk

1. To determine herd cohesiveness, movement patterns and periods and areas of seasonal occupancy for elk selected management units.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Richard Brown

TELE 602/942-3000.

Arkansas

001 Canada Geese

1. To evaluate the potential of establishing pre-determined wintering sites for migrating Canada geese in eastern Arkansas.

MNGT IMP Result in the introduction of wildlife species into suitable habitats to restore populations.

PRNC INV James S. Walter.

002 Whitetail Deer

1. Determine natural mortality and man-induced out-of-season mortality and count embryos to determine reproductive rates.
2. Determine habitat conditions using browse as an indicator to evaluate habitat conditions relative to carrying capacity.
3. Determine deer harvest, population condition and hunter pressure, success and attitudes.
4. Analyze deer harvest data obtained statewide to facilitate the development of harvest and season recommendations.
5. Develop color-coded maps depicting distribution and relative abundance of deer throughout the state.

MNGT IMP Provide information on the abundance, condition or factors that affect wildlife populations to develop population and habitat management practices.

PRNC INV Mike Cartwright.

003 Gray Squirrel

1. To determine if the squirrel harvest and opening dates of the season are detrimental to the squirrel population in the state.

MNGT IMP Provide information on the abundance, condition or factors that affect population so as to develop population and habitat management practices.

004 Waterfowl

1. To provide for the trapping and banding on a statewide basis of 2,600 waterfowl annually.

MNGT IMP Provide information on the abundance condition or factors that affect wildlife populations so as to develop population and habitat management practices.

PRNC INV David M. Donaldson.

005 Ducks

1. To assist the FWS in banding ducks in the Canadian waterfowl breeding grounds.

MNGT IMP Provide information on the abundance, condition, or factors that affect wildlife populations so as to develop population and habitat management practices.

PRNC INV David M. Donaldson.

006 All Wildlife

1. To provide diagnostic capabilities for acute wildlife disease related problems in Arkansas.

MNGT IMP Will be used to overcome or moderate biological limiting factors that affect the growth and well-being of wildlife populations.

007 Black Bear

1. Obtain biological data on hunter harvested bear.
2. Obtain population trend and reproductive data on bear in Arkansas.
3. Obtain information on hunter efforts, areas hunted, hunter attitudes and hunter pressure in making season and harvest recommendations.
4. Nuisance black bear trapping, handling, and relocating to minimize human/bear conflicts.

MNGT IMP Provide information on abundance, condition, or factors that affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Larry Pharris.

008 Game Species

1. Formulation and production of daily game bag survey booklets.
2. Obtain information from hunters to establish an index of hunting pressure and harvest trends in 4 physiographic regions.

MNGT IMP Provide information on public use and demand for wildlife and will aid in the determination of programs or actions to meet the demands.

PRNC INV Barry McArdle and Fred Ward.

009 Waterfowl

1. To conduct aerial statewide inventories of waterfowl populations.

MNGT IMP Provide information on the abundance, condition or factors that affect wildlife populations so as to develop population and habitat management practices.

PRNC INV David M. Donaldson.

010 Bats

1. Study populations and trends at summer and winter hibernacula.
2. Obtain additional data on location of colonies of endangered bats and the ecology of these species.

MNGT IMP Provide information on the abundance of endangered species populations to develop population and habitat management practices.

Arkansas

PRNC INV Michael Harvey.

011 Grouse

1. Select and evaluate habitats suitable for the release of ruffed grouse.
2. Monitor and evaluate all releases.

MNGT IMP Result in the introduction of wildlife species into suitable habitats to restore populations.

PRNC INV Larry Pharris.

012 Canada Geese

1. To evaluate the establishment of a resident free-flying Canada goose population in Arkansas.

MNGT IMP Result in the introduction of wildlife species into suitable habitats to restore populations.

PRNC INV James Walter.

013 Turkey

1. Collect and analyze Spring and Fall turkey harvest data through the use of mandatory check stations.
2. Determine annual production indices, poult survival and population trends.
3. Develop statewide color-coded maps depicting distribution and relative abundance of turkey.

MNGT IMP Provide information on the abundance, condition or factors that affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Larry Pharris.

014 Vegetation

1. Correlate annual mast production with wildlife population levels and carrying capacity.

MNGT IMP Provide information on the abundance, condition or factors that affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Barry McArdale and Carey Wilcoxson.

015 Furbearers

1. Determine a status index for the major furbearers.
2. Determine hunter pressure and harvest by mandatory reporting.
3. Determine reproductive success and age structure of populations of grey fox, raccoon, bobcat, and river otter.
4. Give an additional index of hunting pressure and harvest on furbearers in the state.

MNGT IMP Provide information on the abundance, condition or factors that affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Barry McArdale and Lew Johnston.

016 Hawks/Eagles/Falcons

1. Explore the suitability of possible locations for bald eagle hacking stations.
2. To erect rearing platforms and observation facilities.
3. To place young bald eagles on artificial nesting platforms and feed them until they fledge and learn to forage.
4. Monitor eagles fledged by hacking process - observation and telemetry.

MNGT IMP Result in the introduction of endangered species into suitable habitats to restore populations.

PRNC INV Sam Barkley.

017 Mountain Lion

1. To operate a clearinghouse for documenting Eastern cougar sightings and other records.
2. Investigate cougar reports in Arkansas for further documentation and evaluation.

MNGT IMP Provide information on the abundance of endangered species populations to develop population and habitat management practices.

PRNC INV Sam Barkley.

California

001 Snipe, Mourning Dove, White Wing Dove

1. Coordinate surveys with FWS.
2. Determine status of common snipe in California.
3. Determine productivity, mortality and distribution of mourning doves and band-tailed pigeon in California.

MNGT IMP Provide information on welfare and distribution of the mourning dove, band-tailed pigeon and common snipe for the purpose of developing strategies for management of these species in California.

PRNC INV Charles Graves

TELE 916/445-8285.

002 Waterfowl

1. To monitor breeding and wintering waterfowl populations, determine numbers, distribution, habitat requirements and hunting season mortality.

MNGT IMP Provide information on adundance, harvest and movement of and factors affecting waterfowl populations wintering in California for the purpose of developing management strategies for waterfowl populations occuring in the Pacific Flyway.

PRNC INV D. Connelly

TELE 916/445-8285.

003 Wild Sheep

1. To collect, analyze and compile inventory data on statewide bighorn sheep populations.

MNGT IMP Provide information for the purpose of developing appropriate strategies for management of the bighorn sheep in California.

PRNC INV R. W. Schulenburg

TELE 916/445-6896.

004 Elk

1. To collect, analyze and compile inventory and harvest data on statewide elk populations.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing elk in California.

PRNC INV R. W. Schulenburg

TELE 916/445-6896.

005 Black Bear

1. To analyze and compile inventory and harvest data on statewide black bear populations.

MNGT IMP Provide information for the purpose of developing management strategies for the black bear in California.

PRNC INV R. W. Schulenburg

TELE 916/445-6896.

006 Turkey, Tree Squirrel

1. To monitor affect of habitats and habitat changes on upland associated with agriculture.
2. To determine dependency of Upland game on Oak mast production.

MNGT IMP Provide information on habitat that will aid in developing management strategies for upland game in California.

PRNC INV Charles Graves

TELE 916/445-8285.

007 Galliforms, Cottontail

1. Determine status and harvest of upland game species, including chukar, quail, turkey, pheasant and cotton tail.
2. Monitor harvest of upland game species.
3. To establish residential and non resident upland game species is select suitable habitat.

MNGT IMP Provide information for the purpose of developing appropriate strategies for management of upland game species including locating and releasing in suitable habitat in California.

PRNC INV Charles Graves

TELE 916/445-8285.

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008 Canids, Bobcat

1. Maintain species of nongame mammals for their intrinsic and ecological value as well as direct benefit to man.
2. Provide for scientific, educational and recreational use.
3. Develop and implement management plans for selected species.

MNGT IMP Provide information for the purpose of developing appropriate strategies to aid in managing nongame species in California.

PRNC INV Kent Smith

TELE 916/445-1146.

009 Nongame Birds, Cranes

California

1. To maintain species of nongame birds for their intrinsic and ecological value as well as direct benefits to man.
2. To provide for scientific, educational and recreational use of nongame birds.
3. To develop and implement management plans for selected nongame bird species.

MNGT IMP Provide information for the purpose of developing strategies for management of nongame bird species in California.

PRNC INV R. W. Schlorff

TELE 916/445-1146.

010 Hawks/Eagles/Falcons, Owls

1. Determine distribution, status and habitat relationships.
2. Develop management program and species management plan for selected raptors.

MNGT IMP Provide information for the purpose of developing appropriate strategies for management of raptors in California.

PRNC INV Kent Smith

TELE 916/445-1146.

011 Furbearers, Badger

1. To Determine distribution, status and habitat relationships of California furbearer mammals.
2. To Identify factors affecting their welfare.
3. To Develop resource management programs and species management plans for selected furbearers.

MNGT IMP Provide information for the purpose of developing appropriate strategies for the management of furbearers in California.

PRNC INV Kent Smith

TELE 916/445-1146.

012 Blacktail Deer

1. To collect, analyze and compile inventory and harvest data on statewide deer populations.
2. To develop management plans for individual deer herds.

MNGT IMP Provide information for the purpose of developing appropriate strategies for management of deer herds in California.

PRNC INV R. W. Schulenburg

TELE 916/445-6896.

013 Mountain Lion

1. To collect, analyze and compile lion depredation on livestock and make management recommendations.

MNGT IMP Provide information for the purpose of developing appropriate strategies for management of the Mountain lion in California.

PRNC INV R. W. Schulenburg

TELE 916/445-6896

014 Cervids

1. To coordinate and catalog big game telemetry and marking studies in California.

MNGT IMP Provide supporting role in providing technical information specific to animal behavior when needed for developing appropriate strategies for managing wildlife spaces in California.

PRNC INV R. W. Schulenburg

TELE 916/445-6896.

015 Pronghorn, Feral Animals

1. To establish population trends.
2. To provide management recommendations.

MNGT IMP Provide information for the purpose of developing appropriate strategies for management of pronghorn antelope and exotic big game, and wild horses and burros in California.

PRNC INV R. W. Schulenburg

TELE 916/445-6896.

016 Cervids

1. To develop herd management plans - 101 deer herds.
2. To coordinate implementation of deer herd management plans.

MNGT IMP Provide long-term management strategies to effectively manage deer herds in California.

PRNC INV R. W. Schulenburg

TELE 916/445-6896.

017 Big Game

1. To monitor effects of "Private Land Program" on wildlife resources.

MNGT IMP Provide information for basing recommendations pertinent to acceptance of wildlife management program plans prepared by private landowners for implementation and consequently public use, at a fee, of wildlife occuring on private ranch land in California.

California

PRNC INV R. W. Schulenburg

TELE 916/445-6896.

Colorado

001 Mule Dee~

1. Determine habitat selection and activity patterns of mule deer within habitat types during winter.
2. Summarize data and write final manuscripts.

MNGT IMP This research will provide managers with knowledge on how mule deer use various habitats along the front range. This information will be useful for planning future developments.

PRNC INV Ronald Kufeld

TELE 303/484-2836.

002 Wild Sheep

1. Determine if adrenal responses to acute stress can be used as a reliable indicator of the comulative effects of chronic stress.
2. Correlate the magnitude of adrenal responses to acute stress with measures of immune competence in bighorn sheep.
3. Determine if ivermectin paste (Eqvalan), administered orally, is effective in reducing or eliminating lungworm infections in bighorn sheep.
4. Determine minimum dosage at which ivermectin paste is effective against lungworm in bighorn sheep.

MNGT IMP Would minimizethe cost and increase the effectiveness of lungworm treatment in bighorn sheep. Mortality due to lungworm infection would be reduced and a larger populations of bighorns would result.

PRNC INV N. Thompson Hobbs

TELE 303/484-2836.

003 Man

1. Collect, review, and annotate wildlife law enforcement related articles.
2. Edit and revise draft annotated bibliography prepared in the last segment.
3. Submit draft bibliography for peer review as needed.
4. Prepare and distribute final copy of bibliography.

MNGT IMP Wildlife law enforcement personnel will have simplified access to available wildlife law enforcement literature. Tedious and expensive literature searches will be reduced.

PRNC INV John F. Smeltzer

TELE 303/484-2836.

004 Mule Deer

1. Develop a system to estimate the number of deer certain winter ranges are capable of supporting.

MNGT IMP This information will be vital to developing more meaningful habitat evaluation systems for deer.

PRNC INV David Freddy

TELE 303/484-2836.

Colorado

005 Mountain Lion

1. Investigate seasonal and diet activities, territoriality, population dynamics, habitat use, food habits and bioenergetics of an unhunted mountain lion population.
2. Remove designated numbers of lions from specified sex and age classes and measure individual and population responses.
3. Simultaneously monitor population dynamics of mountain lions and ungulate prey species to measure effects of lion predation on ungulate population dynamics.

MNGT IMP Provide information for a realistic attainment of harvest objectives of the strategic plan and provide a more objective evaluation of alternative management strategies.

PRNC INV Allen E. Anderson

TELE 303/249-3431.

006 Grouse

1. Conduct breeding (May-June) and brood (Aug-Sept) censuses of white- tailed ptarmigan using tape recorded calls of males (breeding) and chicks (brood).
2. Capture (noose poles) and band (aluminum and plastic color-coded band) unmarked white-tailed ptarmigan encountered on study areas at Mt. Evans and at Rocky Mountain National Park.
3. Individually identify all ptarmigan observed on study areas at Mt. Evans and Rocky Mountain National Park through use of binoculars.
4. Make hunting season and bag limit recommendations for Mt. Evans andcollect hunting data through use of volunteer wing barrels and hunter field checks.

MNGT IMP It is necessary to understand the "normal" fluctuations in wildlife populations and their causes as well as the specific effects of different levels of exploitation (hunter harvest) to manage species for optimal recreational use of the resources.

PRNC INV Clait Braun and Ken Giesen

TELE 303/424-2836.

007 Grouse

1. Locate sharptail broods by systematic search of suitable habitats and by using tape-recorded chick distress calls.
2. Ascertain brood size from counts of broods located in July and August.
3. Trap adult sharptails using walk-in traps in brood areas and baited walk-in traps in fall and winter, and individually mark with aluminum bands and colored plastic bands.
4. Capture sharptail chicks using walk-in and/or drive traps in areas where sharptails are known to occur.
5. Locate all radio-marked sharptails weekly for documentation of home range size and seasonal habitat use.
6. Habitat at sharptail use sites and random sites will be quantified using cover boards, vertical intercept, and point center quarter measurements.
7. Estimate nesting success from wing molt of hens captured in summer and from wings obtained from hunter harvested birds.
8. Ascertain distribution of hunters and hunter harvest from field hunter checks, check stations, and wing barrels.
9. Obtain number and location of marked birds shot through use of field hunter check, check stations and voluntary mail reporting.
10. Food habits will be ascertained from crops of sharptails obtained from hunters and systematic collections.

MNGT IMP There has been a reduction in distribution and populations of Columbian sharp-tailed grouse in North America because of habitat loss. Habitat alteration is occuring within the distribution of Columbian sharp-tailed grouse in Colorado. There is a need to develop a survey technique for both habitat and population density.

PRNC INV Kenneth Giesen

TELE 303/484-2836.

008 Black Bear

1. Estimate age when female bears have first litters, litter size and frequency of litters.
2. Calculate home range size and seasonal home range dynamics for bears in the Black Mesa Study area.
3. Document survival of radio collared bears.
4. Determine habitat preference of eight female black bears in the study area.

MNGT IMP Better estimate herd size for more precise harvest regulations.

PRNC INV Thomas D.I. Beck

TELE 303/921-3131.

009 Mountain Goat, Wild Sheep

1. Test the hypotheses that mountain goats and bighorn sheep use alpine habitats disproportinately to their availability, that bighorn sheep use alpine habitats disproportionally to habitat availability, that mountain goats and bighorn sheep use alpine habitats that are spatially discrete - their distributions are independent, and that mountain goats and bighorn sheep exhibit the same activity patterns in alpine habitats.

MNGT IMP Determine if introduced mountain goats have a detrimental effect on bighorn sheep and provide information that would change harvest and translocation practices.

PRNC INV Dale Reed

TELE 303/484-2836.

010 Pronghorn

1. Test the efficiency and precision of quadrat system to estimate pronghorn density and population structure.
2. Simulate pronghorn population changes to evaluate Pronghorn population estimates derived from quadrat system.
3. Begin planning line transect pronghorn population estimation study.

MNGT IMP Allow wildlife managers to monitor long term population trends and analyze contributory causes to population changes.

PRNC INV Tom Pojar

TELE 303/484-2386.

Colorado

011 Puddle Ducks

1. Trap and band 400 adult males, 350 adult females and, if available, up to 100 local gadwall on molting and brood rearing areas in North Park.
2. Submit banding schedules and recapture reports to the U.S. Fish and Wildlife Service's Bird Banding Laboratory. File return information at the Colorado Division of Wildlife Research Center.

MNGT IMP Banding of gadwall meeting the prescribed sample size objectives, will result in the most complete set of substantial gadwall banding and resulting recoveries on record. These data will enable estimation of recovery and survival rates for adults of this important species as well as valuable information on the distribution of harvest.

PRNC INV Michael Szymczak

TELE 303/484-2836.

012 Puddle Ducks

1. Identify the physical and biological characteristics of wetlands used by molting ducks.
2. Investigate spatial and temporal differences in use of wetlands by molting ducks.
3. Determine the behavior time budgets and net energy balance of molting ducks.
4. Determine the survival rate of molting ducks in relation to sex, body condition, habitat quality, and time of molt.

MNGT IMP The set of environmental conditons with which flightless waterfowl associate are not understood and generally have not been addressed by waterfowl workers. The importance of these conditions to the various species is obvious as the bird cannot escape the environment it has chosen to spend the flightless period. There is a definite need to define and document all aspects of this critical period in ducks from the basic definition and identification of molting areas to survival during the molting period. Identification of wetlands which are important molting areas will allow protection of those wetlands form habitat alteration or harmful activities.

PRNC INV Michael R. Szymezak

TELE 303/484-2836.

013 Grouse

1. Determine the effect of fertilizing sagebrush on the behavior, productivity, food habits and survival of sage grouse.

MNGT IMP Experiments are needed to learn if wildlife habitats can be manipulated to increase the number of animals either produced or maintained per unit of area. Because of its primary dependence upon sage sagebrush and a strong data base, the sage grouse population in North Park, Colorado is an ideal candidite species to use in evaluating mitigation practices and, in the long term, the quality of revegitation practices used.

PRNC INV Clait Braun

TELE 303/484-2836.

014 Man

1. Develop test procedures to evaluate the level of illegal purchases of resident license.
2. Sample and screen sufficient licenses to identify 100 violations by category.
3. Assign license purchase violation to regional personnel for followup.

MNGT IMP The magnitude and nature of illegal license purchases in Colorado will be evaluated. Recommendations will be made to reduce the violation rate and to increase the detection rate for this type of violation.

PRNC INV John Smeltzer

TELE 303/484-2836.

015 Grouse

1. Evaluate lipid reserves of male sage grouse collected in the Gunnison Basin during April and May 1985.
2. Evaluate winter distribution of sage grouse in the Gunnison Basin.
3. Describe topographic characteristics at areas used by sage grouse in winter.
4. Describe shrub structure and sagebrush species composition at sites used by sage grouse in winter.
5. Collect sagebrush foliage samples from 15-20 sites where sage grousefeeding activity is observed and compare nitrogen and terpenoid levels of sagebrush leaves at feeding sites to foliagecollected at 20 randomly selected sites.
6. Use aerial and ground transects to measure January-March snow depths and sagebrush exposure in the Gunnison Basin.
7. Collect 10 adult male sage grouse during early (1-10 Apr) and late (10-15 May) periods of the display season for analysis of carcass composition.
8. Conduct aerial and ground searches for previously undiscovered leks. Survey sage grouse attendance on known leks.
9. Capture and radiomark up to 15 female sage grouse. Monitor movements of hens following breeding to obtain information on nesting biology and habitat use.
10. Measure shrub structure at 20-30 randomly selected sites in areas where sagebrush has previously been treated with 2,4-D spraying. Compare shrub structure to randomly selected sites in untreated areas and to sites used by sage grouse during winter and spring periods.

MNGT IMP Sage grouse distribution and habitat use data are needed to develop a comprehensive plan regarding management of sagebrush habitats in the Gunnison Basin. A management plan will improve coordination among agencies that deal with range improvement projects. Comparative data on morphological and behavioral characteristics of Gunnison Basin sage grouse are needed to assess possible habitat influences on these parameters.

PRNC INV Clait Braun

TELE 303/424-2836.

016 Pheasant

1. A soil probe will be used to monitor the depth that precipitation has accumulated in the subsoil within treatment and control wheat fields at the time of wheat planting in September. If the upper soil is too dry to permit probe penetration, sampling will be attempted following a rain.
2. Visual obstruction measurments of wheat stubble in treatment and control fields will be obtained in March or April and at prescribed times in April and May within green wheat and other herbaceous cover tracts.
3. Timing of spring tillage of wheat stubble fields (controls) will be recorded.
4. Timing of wheat harvest treatment and control tracts will be monitored along with comparisons of wheat yields and effectiveness of herbicides.
5. Activity signs indicating presence of rodents will be visually monitored in mid-summer and early fall within no-till fields.

Colorado

MNGT IMP Previous studies have documented that nest site selection by pheasants and other ground nesting game birds is directly related to the height-density quality of vegetation. Therefore, an assessment is needed to compare the quality of no-till wheat stubble with other available nesting covers and to document the quality, quantity, and security of nesting cover under no-till cropping. There is also need to work with CDOW to gain knowledge and refine no-till farming as a feasible approach for use on CDOW properties.

PRNC INV Warren D. Snyder

TELE 303/854-3228.

017 Puddle Ducks

1. During November-February, conduct feeding trials with mallard ducks. Dose hand-picked study plots at corn densities of 25, 50, 100, 200, 400, 600, and 800 kg/ha.
2. Derive a functional response curve for mallards feeding on waste grain at each density. Compare with foraging rates obtained in "blackdirt"experiments. Partition out differences in foraging rates based on search time.

MNGT IMP The basic need is to learn the amount of corn required to support a given waterfowl population. This amount is dependent not only on harvester efficiency and corn moisture at harvest, but also on the post-harvest treatment. Such treatment alter the availability of kernels and ears to an unknown degree, as well as increase "search time" among feeding birds thereby decreasing feeding efficiency. Thus, several variables need to be examined to achieve an understanding of carrying capacity in terms of availability.

PRNC INV James Ringelman

TELE 303/484-2836.

018 Grouse

1. Capture and radiomark 6-8 blue grouse for observation of feeding behavior and location of feeding sites.
2. Relocate, as time allows, radio-markded birds for observation of feeding behavior and locaton of feeding sites.
3. Collect needle samples.
4. Measure and compare nitrogen, cell-content, monoterpene and/or phenolic resin content of Douglas-fir needles from fed-upon and non-use site trees.
5. Collect grouse as time permits thoughout winter. A sample of 20 birds (5 adults and 5 juveniles of each sex) is desired.
6. Capture 8 grouse for preference and digestibility trials.
7. Repeat trials to rank preferences of grouse for 5 conifer species.
8. Conduct trials to test whether blue grouse detect palatable needles by differences in infra-red reflectance patterns.
9. Conduct trials to measure total metabolizable nitrogen and total metabolizable energy of preferred and non-preferred needles.

MNGT IMP Previous research in Colorado has identified general characteristics of blue grouse habitat during winter and other periods. This study was designed to answer specific questions about how blue grouse use habitat, specifically winter habitat. Blue grouse food habits and preferences during winter have not been quantified in Colorado and are apparently the cause of much confusion. This study has quantified blue grouse use of and preference for conifer needles as food; it is exploring possible reasons for food preference/avoidance, and how blue grouse judge whether a food is of high or low value.

PRNC INV Richard Hoffman

TELE 303/484-2836.

019 Turkey

1. Using drop nets and cannon nets, trap and individually mark 100+ birds each study area. In addition, 40 birds, including 6 males and 34 females, will be equipped with tail-mounted radio transmitters on the study area in the SE region.
2. Document timing of winter flock break-up.
3. Document onset of gobbling and peaks of gobbling activity.
4. Document onset of egg laying and nest initiation and peak of hatch.
5. Measure the effects of human disturbance on the rate of nest abandonment.
6. Collect 2 hens/week starting the 1st week of April and continuing through the 4th week of May to document the reproductive condition of females.
7. Implement a hunter questionnaire-wing collection program using a permit system-mail wing survey.

MNGT IMP Merriam's wild turkey have been legally hunted in Colorado since 1949 with dramatic increase in hunter interest and harvest in the late 1970's and early 1980's. This increase in hunter participation and harvest has generated concern about the impacts of additional pressure upon the resource. These concerns have included questions about the allowable harvest of males in spring, timing of the spring season, and impacts of spring hunting on reproductive sucess.

PRNC INV Richard Bartman

TELE 303/484-2836.

020 Grouse

1. Test techniques to restore prairie vegetation on the South Tamarak Wildlife property.
2. To monitor environmental and vegetation conditions and changes in sand sage-blue stem areas that are burned.

MNGT IMP Habitat modification is needed to convert the South Tamarack to vigorous stands of lodge-resistent grasses that will provide essential habitats for prairie grouse. Evaluations are needed to assess use of controlled, burning, revegetation, and other techniques.

PRNC INV Warren Synder

TELE 303/424-2836.

021 Turkey

1. Evaluate lowland riparian habitats occupied by Rio Grande wild turkeysand select study areas.

MNGT IMP The Colorado Division of Wildlife has aggressively transplanted wild turkeys throughout the state with emphasis in recent years on releases of Rio Grande wild turkeys into riparian habitats in the eastern plains. Some of these releases have resulted in established populations which are now hunted on a permit basis; other releases have done poorly. Observations have indicated that wild turkeys have moved from riparian into surrounding agricultural habitats for nesting and brood rearing. The importance of the different habitat types and their relationship to reproductive success is unknown for these introduced populations of wild turkeys. This relationship needs to be investigated as the CDOW owns and leases substantial acreages of riparian habitats. This knowledge is necessary if management of habitats for wild turkeys is desired.

Colorado

PRNC INV Richard Hoffman

TELE 303/424-2836.

022 Nongame Wildlife

1. Survey Nongame birds and mammals in at least one major vegetation type of the Uncompahgre Plateau.

MNGT IMP To provide guidelines for various vegetative types for cutting of these types, To determine sensitive species within these types. Information will add information to computerized Lotilong system.

PRNC INV Bob Clark

TELE 303/249-3431.

023 Hardwoods

1. To determine the role of establishment and survival of cottonwoods.
2. To develop techniques for propogating woody vegetation.

MNGT IMP Plains cottonwood riverbottom contains a greater diversity of wildlife species as well as a greater density of wildlife than any other ecosystem in Colorado. Plains riverbottom had CDOW's highest priority for acquistion and enhancement. Therefore, it is imperative that we assess and changes and factors causing these changes as a basis for maintenance and enhancement of this valuable resource.

PRNC INV Warren Snyder

TELE 303/845-3228.

024 Big Game

1. Test accuracy of fecal analysis to estimate diets of big game ruminants.
2. Investigate impact of pronghorn grazing activities on winter wheat yields.
3. Develop a conceptual model of pronghorn habitat interactions and develop a research proposal to validate the conceptual model.

MNGT IMP Herd size in certain farm areas would be determined by the economic empact of antelope grazing on winter wheat.

PRNC INV Bruce Gill

TELE 303/484-2836.

025 Elk

1. Develop techniques to more accurately and precisely estimate elk populations.
2. Compare means, corresponding precision levels and cost of 2 independent systems for estimating elk numbers.

MNGT IMP More accurate and efficient census techniques will increase the managers ability to manage elk.

PRNC INV George Bear

TELE 303/484-2836.

026 Mule Deer

1. Determine over-winter survival of male deer fawns on study areas adjacent to proposed oil shale developments.

MNGT IMP To measure impacts of oil shale development on mule deer populations it is necessary to know pre-treatment dynamics of the population. This work addresses that issue.

PRNC INV Richard Bartmann

TELE 303/484-2836.

027 Puddle Ducks

1. Derive condition indices from weights and measurements.
2. Analyze condition indices to determine temporal, age, and/or sex specific differences in body condition.
3. Relate changes in condition indices to food availability, weather, and hunting regimes.
4. Perform multiple regression and multivariate analyses to determine those variables (weather, homing rate, condition, food availability,hunting pressure, recruitment, flyway population size) which account for most of the variation in mallard population size during winter at Bonny Reservoir.
5. Use historical banding and recovery/return data to examine changes in homing rate before and after establishment of the experimental study area.

MNGT IMP Baseline information on mean levels and variablility in body condition is needed before we can understand how to identify mallard populations that overwinter in poor condition and what to do about it. A precursor to this is the development of a workable condition index. Lastly, a need exists to identify the environmental factors that prevent mallards form attaining adequate nutrient reserves.

PRNC INV James Ringelman

TELE 303/484-2836.

028 Mule Deer

1. Evaluate mule deer census methodolgy on pinyon-jumper winter range.

MNGT IMP The accuracy and precision of counting methods must be known if they are to be effective. This research tests both the quadrant count method for precision and accuracy in estimating numbers of mule deer.

PRNC INV Richard Bartman

TELE 303/484-2836.

029 Mule Deer

Colorado

1. Estimate over-winter predation rates on mule deer fawns associated with lowered coyote densities.
2. Estimate the degree of compensatory mortality of mule deer fawns in response to expected changes in coyote predation rates.

MNGT IMP Knowledge on the effectiveness of coyote control on the survivability of mule deer fawns will be used in managing deer populations.

PRNC INV Richard Bartmann

TELE 303/484-2836.

030 Elk

1. Test effect of winter use of rangeland by elk on livestock production during spring and summer.

MNGT IMP There is a growing concern that elk grazing during winter is a serious economic cost to livestock producers. This research will investigate that claim.

PRNC INV Dan Baker

TELE 303/484-2836.

031 Puddle Ducks

1. Capture mallards during December using Salt Plains bait traps. Weigh, measure, and radiomark adult female mallards.
2. Assist U.S. Fish and Wildlife Service personnelin monitoring movements of instrumented mallards during Jauary-March 1986. Recover any instrumented ducks that die during this interval.
3. Relocate instrumented ducks during late April and determine nesting status, clutch size, and proximity of nest to wintering area.

MNGT IMP The dynamics of any population are affected by both births and and deaths. Winter fat reserves of mallards may play a role in both processes. It must first be determined if fat reserves influence population dynamics, then if a threshold level exists below which detrimental effects are observed. It may then be possible to manage wetland and upland (grain field) habitats to favor accumulation of fat reserves

PRNC INV James Ringelman

TELE 303/424-2836.

032 Grouse

1. Inventory potential study sites in southeastern Colorado and evaluate sites on the basis of lesser prairie-chicken populations and habitat type.
2. Evaluate techniques for locating and counting active lesser prairie- chicken leks and methods for trapping and marking, including radio telemetry systems.
3. Prepare draft of study plan to measure seasonal habitat use by lesser prairie-chickens in southeastern Colorado.

MNGT IMP The Lesser prairie-chicken is listed as a threatened species in Colorado because of its restricted range (Comanche grasslands) and low population size. Because of the restricted distribution and population in Colorado it is desiraole to understand its seasonal habitat requirements and investigate the potential limiting factors affecting the species.

PRNC INV Kenneth Giesen

TELE 303/424-2836.

033 Elk

1. Develop procedures to evaluate impact of change in bull elk harvest on White River elk population.

MNGT IMP Recent changes in antler restrictions for bull elk harvest in Colorado require measurements of the impact. This research will establish those methods and thus provide information to managers of the impact of new regulations on the elk population.

PRNC INV David Freddy

TELE 303/724-3433.

034 All Wildlife

1. Review literature pertaining to aspen ecology, aspen silvicultural practices, aspen-wildlife relationsips, effects of aspen manipulation of wildlife populations, and chemical and nutrirional characteristics of aspen.
2. Interview selected personnel of the CDOW, USFS, BLM, Colorado State Forest Service, and Louisiana Pacific Corporation concerning aspen-wildlife research needs.
3. Interview selected personnel involved in aspen research and management in other states to identify potential problems and assist in the selection of an appropriate research topic.
4. Visit proposed aspen timber sales in Colorado that are potentially suitable for conducting research.
5. Prepare a detailed study on an approved research topic and select study areas to meet research needs.

MNGT IMP Quaking aspen dominated plant communities comprise nearly 2.3 million acres of commercial forest lands in Colorado. Until recently, there has been little commercial demand in Colorado for aspen for manufacturing wood products; consequently, large-scale treatments (cutting) within the aspen type have been virtually nonexistent. This situation has changed as 2 waferboard mills have been built in Colorado to process aspen. Thus, there is now a demand for aspen as commercial timber. Knowledge about the impact of aspen harvest on wildlife is limited. Thus, it is important to investigate the impacts of different silvicultural treatments in the aspen type on wildlife species that seasonally use this type.

PRNC INV Richard Hoffman

TELE 303/424-2836.

035 Puddle Ducks

1. Examine aerial imagery, harvest data, winter waterfowl surveys, and wetland inventory data bases to determine potential study areas. Contact District and Area Wildlife Manages and Biologists with jurisdiction in potential study areas.
2. Survey potential study areas during early, mid, and late winter to evaluate the suitability of each site. Prime considerations are road systems, access to private land, existence of sizeable mallard populations, the diversity of hunting regimes practiced in the area, terrain favorable to a biotelemetry study, and proximity of one or more weather stations.
3. During December, capture and radiomark 6 mallards (3 females, 3 males) to determine fidelity to the study area, frequency of movements, and suitability of transmitter design. Refine tracking methodology.

Colorado

MNGT IMP It is necessary to identify the complex of wetland types required by wintering mallards. Once we can recognize the physical and biotic properties of important wetlands, guidelines can be established for purchase or easement of such areas. To manage these areas effectively, we need to understand how weather and hunting interact to exclude birds from desirable wetlands under certain conditions. This will allow more effective management of the one component under our control: hunting regimes.

PRNC INV James Ringelman

TELE 303/424-2836.

036 Grouse

1. Trap and mark all male greater prairie-chickens on 2-3 leks on each of 2 study locations.
2. Radiomark at least 25 (15 female, 10 male) greater prairie-chickens.
3. Relocate all radio-marked greater prairie-chickens at least twice per week as long as radios are active.
4. Describe vegetation (macro and micro habitat analysis) at all prairie-chicken relocation sites and vegetatively map the entire study areas. An equal number of random sites will be described in the same interval as measurements at use sites.
5. Document reproductive parameters, movements, and survival for all radio-marked prairie-chickens.

MNGT IMP Because of its classified status (endangered) and the CDOW's long-term goal of delisting the species, there is an urgent need to learn how greater prairie-chickens use habitats (i.e., what they need to survive) within occupied ranges. Once use is described and the essential components tested, it will be possible to develop suitable habitats for prairie-chickens outside of the presently occupied range where apparently suitable habitats may occur.

PRNC INV Clait Braun

TELE 303/424-2836.

037 Wetlands

1. Measure marsh bird responses to motor vehicles and persons on foot.
2. Measure flushing distance of snowy egrets, white-faced ibis, and black-crowned night herons to motor vehicles and persons on foot.
3. Monitor hatching and fledging success of colonial nesting wading birds in heronries at Russell Lakes, Monte Vista National Wildlife Refuge, and Head Lake.
4. Collect regrugitated food boluses from nestlings for compositional analysis.
5. Measure emergent stem density, height and diameter, nest height, inter-nest distance, and distance to open water edge at 10 randomly-selected snowy egret, white-faced ibis, and black-crowned night heron nest sites at each heronry.
6. Measure emergent stem density, height and diameter, and distance to open water edge at 10 randomly selected sites within each heronry.
7. Measure nest support capability of different densities and species of emergent aquatic vegetation.

MNGT IMP Recent studies indicate the demand for nonconsumptive wildlife recreation is great and is expected to increase. Wildlife managers should understand the effects of disturbance on wildlife caused by public viewing and methods that can be used to minimize adverse effects. While there is considerable information on the effects of disturbance on breeding birds caused by scientific investigation, little has been done to investigate public viewing disturbance. This study investigates the effects of public-viewing related disturbance on selected breeding marsh birds and methods to minimize effects.

TELE 303/424-2836.

038 Ferret

1. Locate and map all prairie dog towns in northwestern Colorado where recent ferret sightings have been reported.
2. Conduct searches for ferrets on prairie dog towns via spot-lighting and snow searches.

MNGT IMP Will help Colorado and the U.S. Fish and Wildlife Service meet goals established in the Black-Footed Ferret Recovery Plan.

PRNC INV John Ellenberger.

039 Terrestrial Plants

1. To protect important habitat for federally listed and Category 1 and 2 species of plants.
2. To continue implementation of Recovery Plans for Sclerocactus glaucus (threatened), Sclerocactus mesa-verde (threatened), Echinocereus triglochiddiatus var. inermis (endangered), and Phacelia formosula (endangered) to maintain current population levels of these species in Colorado.
3. To register and designate by the Colorado Natural Areas Program the best known population and habitat for federally listed species and for federal candidate species; including Escalante Creek (Sclerocatus glaucus), Spring Creek (Echinocereus triglochidiatus var. inermis), Chimney Rock (Sclerocactus mesa-verde), MT. Bross (Braya humilis), South Beaver Creek (Astragalus microcymbus), Pyramid Rock (Sclerocactus glaucus), Garden Park (Eriogonum Brandegii), Lost Park (Ptilagrostis porteri), North Park (Phacelia formosula), and Raven Ridge (Penstemon albifluvis).
4. To assist federal land managing agencies in monitoring habitats of federal candidate plant species which occur on public lands, including South Cathedral Bluffs (Thalictrum heliophilum), Dudley Bluffs (Physaria obcordata), and Deer Gulch (Festuca dasyclada).
5. To continue private landowner contact for protecting habitats of federal candidate plant species which occur on private lands.

MNGT IMP Will help Colorado and U.S. Fish and Wildlife Service meet responsibilities under the Endangered Species Act.

PRNC INV Dave Kuntz

TELE 303/866-3311.

Connecticut

001 Waterfowl

1. To band waterfowl in Eastern Canada.

MNGT IMP Representative banding of waterfowl in pre-season concentration areas is required in order to obtain data needed on mortality, productivity, hunter pressure, effect of regulations, and general information on migration and distribution of kill.

PRNC INV Greg Chasko

TELE 203/641-2841.

002 Waterfowl

1. To band waterfowl in Eastern Canada.

MNGT IMP Representative banding of waterfowl in pre-season concentration areas is required in order to obtain data needed on mortality, productivity, hunter pressure, effects of regulations, and general information on migration and distribution of kill.

PRNC INV Greg Chasko

TELE 203-641-2841.

003 Turkey

1. To monitor Eastern wild turkey population, growth, and expansion from previous releases.
2. To determine brood densities, hen/poult ratio and poult survival.
3. To collect biological data from harvested birds, and extent of harvest, hunter participation etc.

MNGT IMP This project will provide information on the abundance, condition or factors that affect wild turkey populations so as to develop population and habitat management strategies.

PRNC INV Brian Miller

TELE 203/641-2841.

004 Whitetail Deer

1. To manage the states's deer population in a biologically sound manner.

MNGT IMP This project will provide information on the abundance, condition, or factors that affect white-tailed deer populations so as to develop population and habitat management practices.

PRNC INV Jim Spignesi

TELE 203/641-2841.

005 Small Game

1. To expedite habitat management on state lands.
2. To inform landowners and land managers of small game habitat management techniques which are compatible with land use objectives.

MNGT IMP This project will result in the protection and development of small game habitat to sustain or enhance populations.

PRNC INV Peter Good

TELE 203/641-2841.

006 Upland Game

1. To relieve localized pressure on the small game resource through access management and new area development.

MNGT IMP This project will result in the improvement of small game habitat to sustain or enhance these populations.

PRNC INV Peter Good

TELE 203/641-2841.

007 Small Game

1. To monitor small game harvest trends and hunter use patterns.

MNGT IMP This project will provide information on the abundance, condition, or factors that affect small game populations so as to develop population and habitat management practices.

PRNC INV Peter Good

TELE 203/641-2841.

008 Otter

MNGT IMP This project will provide information on the abundance and factors that affect river otter populations so as to develop management practices.

PRNC INV Daniel Harrison

TELE 203/641-2841.

009 Furbearers

1. To promote wise use of the furbearer resource. Species include: Raccoon, otter, mink, coyote, red fox, gray fox, and beaver.

MNGT IMP This project information on public use and demand for furbearers and will aid in determination of programs or actions to meet demands.

Connecticut

PRNC INV David Harrison

TELE 203/641-2841.

O10 Furbearers

1. To determine effective estimate of furbearer harvest levels.

MNGT IMP This project will be used to overcome biological limiting factors that affect the growth and well-being of furbearer populations.

PRNC INV Daniel Harrison

TELE 203/641-2841.

O11 Furbearers

1. To develop base-line population data for annual up-dating of species abundance and distribution. Species include raccoon, coyote, bobcat, gray fox and red fox.

MNGT IMP This project will provide information on the abundance and condition that affect furbearer populations so as to develop population and habitat management practices.

PRNC INV David Harrison

TELE 203/641-2841.

O12 Waterfowl

1. To determine population status and trends via various surveys and banding efforts.

MNGT IMP This project will provide information on the abundance, condition, or factors that affect waterfowl populations so as to develop population and habitat management strategies.

PRNC INV Greg Chasko

TELE 203/641-2841.

Delaware

001 Fox Squirrel, Hawks/Eagles/Falcons

1. To reintroduce and monitor survival/reproduction success of Del Marva Fox Squirrels.
2. To determine nesting success and migratory patterns of Bald Eagles.

MNGT IMP Recovery of 2 endangered species.

PRNC INV LLoyd Alexander

TELE 302/736-5296.

002 Vegetation

1. This porject will result in production, development, or improvement of rare plant species habitat to sustain or enhance those populations.

MNGT IMP To survey and monitor approximately 20 of Delaware's most critical rare plant species.

PRNC INV Charles Sidkin.

003 Whitetail Deer, Waterfowl, Cottontail, Quail

1. To determine production, life history characteristics, harvest and mortality factors for certain wildlife species.
2. To determine hunter preference and hunter success for game species.

PRNC INV Tom Whittendale

TELE 302/736-4431.

004 Hawks/Eagles/Falcons

1. To determine nesting and reproductive success of Ospreys in Delware's lower bays.

PRNC INV Tom Whittendale

TELE 302/736-4431.

005 Hawks/Eagles/Falcons

1. To determine nesting and reproductive success of Ospreys in Delware's lower bays.

PRNC INV Tom Whittendale

TELE 302/736-4431.

006 Furbearers

Delaware

1. To determine trapper activity, furbearer productivity, and harvest of muskrat, otter, and raccoon.

PRNC INV Tom Whittendale

TELE 302/736-4431.

007 Furbearers

1. To determine trapper activity, furbearer productivity, and harvest of muskrat, otter, and raccoon.

PRNC INV Tom Whittendale

TELE 302/736-4431.

008 Whitetail Deer, Waterfowl, Cottontail, Quail

1. To determine production, life history characteristics, harvest and mortality factors for certain wildlife species.
2. To determine hunter preference and hunter success for game species.

PRNC INV Tom Whittendale

TELE 302/736-4431.

009 Turkey

1. To establish the wild turkey as a self-sustaining resident species.

PRNC INV Tom Whittendale

TELE 302/736-4431.

010 Turkey

1. To establish the wild turkey as a self-sustaining resident species.

PRNC INV Tom Whittendale

TELE 302/736-4431.

Florida

001 Cats

1. To monitor existing panther populations and their habitats.

MNGT IMP This study will provide information on the abundance of panther populations to be used to develop population management practices.

PRNC INV R.C. Belden.

002 Hawks/Eagles/Falcons

1. To annually monitor the status of the Everglade kite in Florida.

MNGT IMP This study will provide information on the abundance and condition of endangered species populations that will be used to develop population and habitat management practices.

PRNC INV J.A. Rodgers, Jr.

003 Cats

1. To determine the range and habitat utilization by the Florida panther in southern Florida.

MNGT IMP This study will provide information on the abundance, condition, or factors that affect endangered species populations so as to develop population and habitat management practices.

PRNC INV R.C. Belden.

004 Cats

1. Determine the foods utilized by Florida panthers through scat analyses.
2. Determine the average frequency with which panthers make large kills and to identify those kills.

MNGT IMP This study will be used to overcome or moderate biological limiting factors that affect the growth or well-being of endangered species populations.

PRNC INV R.C. Belden.

005 Cats, Cervids

1. Determine the extent to which the deer herd adequately serves as a prey base for Florida panthers that inhabit the area.
2. Determine whether sport hunting suppresses deer numbers in such a manner as to impact food availability for panthers.
3. Determine the potential to enhance deer numbers in the area to further benefit food availability to panthers.

MNGT IMP This study will provide information which will be used to overcome or moderate biological limiting factors that affect the growth or well-being of endangered species populations.

PRNC INV R.C. Belden.

Florida

006 Cats

1. To locate and delineate all Florida panther populations in Florida.

MNGT IMP This study will provide information on the abundance and condition of endangered species populations to develop population and habitat management practices.

PRNC INV R. C. Belden.

007 Reptiles

1. To identify factors regulating the size and density of American crocodile populations.

MNGT IMP This study will provide information to be used to overcome or moderate biological limiting factors that affect the growth and well-being of endangered species populations.

PRNC INV P.E. Moler.

008 Reptiles

1. To locate American crocodile nests and determine level of nest success and causes of failure.

MNGT IMP This study will provide information on the abundance, condition, or factors that affect endangered species populations so as to develop population and habitat management practices.

PRNC INV P. E. Moler.

009 Cranes

1. To determine if greater sandhill cranes released into the wild, survival is compared to that of normal, wild crane.

MNGT IMP Results of this study will provide information necessary to introduce endangered species into suitable habitat to restore populations.

PRNC INV Stephen A. Nesbitt.

010 Cranes

1. To select the best possible reintroduction sites for reestablishing whooping cranes in Florida.

MNGT IMP Results of this study will provide information necessary to introduce endangered species into suitable habitat to restore populations.

PRNC INV Stephen A. Nesbitt.

011 Cranes

1. To determine the feasibility and best methodology to produce a nonmigratory flock of whooping cranes.

MNGT IMP Results of this study will provide information necessary to introduce endangered species into suitable habitat to restore populations.

PRNC INV Stephen A. Nesbit.

012 Game Species

1. To determine hunter pressure and hunting harvest on major game species occurring statewide and on W.M.A's.

PRNC INV Thomas J. Wright.

013 Puddle Ducks

1. To determine the prevalance of ingested lead in ringneck ducks wintering in Florida.
2. To determine the effects of lead ingestion on the physical and reproductive condition of ringneck ducks.

MNGT IMP To provide information on limiting factors in wildlife populations to evaluate effectiveness of management technique.

PRNC INV James E. Thul.

014 Tree Ducks

1. To characterize the parasite fauna of wintering wood ducks in Florida.
2. To determine the feasibility of separating migratory and resident woodducks by using helminth parasites in conjunction with blood parasite tags.
3. To determine if active transmission of anatid blood parasites occurs in a typical Florida habitat.
4. To determine the prevalance of blood parasites at selected sites in northern states.
5. To determine the rate of decline in detectable hematozoan parasitemias in wood ducks through the course of the year.
6. To determine the prevalance of detectable parasitemias in northern wood ducks during fall and winter.
7. To determine the prevalance of hematozoan infection in wood ducks killed during late fall and winter in southern states.

MNGT IMP This study will provide management information to be used to evaluate management techniques for the wood duck.

PRNC INV James E. Thul.

015 All Wild ife

1. To conduct surveys of the parasites and diseases of selected birds and mammals.

MNGT IMP This study will provide information on biological limiting factors that affect the growth and well-being of wildlife populations. This information will be used to overcome or moderate these factors to enhance wildlife populations.

Florida

PRNC INV Tommy Hines.

016 Black Bear

1. To delineate the current distribution and habitats utilized by black bears in Florida.
2. To describe year-round foods of black bears in Florida.

PRNC INV James R. Brady.

017 Otter

1. To delineate age-specific reproduction and mortality rates.
2. To determine an optimum harvest season to minimize taking of pregnant females and non-prime hides.
3. To evaluate otter population estimation and index techniques in current use.
4. To evaluate current harvest estimate techniques used in Florida.
5. To test the feasibility of two field-sign methods for indexing state wide otter populations.

MNGT IMP This study will provide information on abundance, condition, or factors that affect wildlife populations so as to develop population management practices.

PRNC INV James R. Brady.

018 Waterfowl

1. Consolidate, analyze, and publish data from past gizzard surveys.
2. Formulate a long range plan for implementing non-toxic shot regulations in Florida.
3. Determine the incidence of lead and steel shot ingestion in wintering waterfowl from areas of special concern in Florida.
4. Assess the effectiveness of steel shot in reducing lead ingestion.

MNGT IMP This study will provide information to be used to assess management practices to determine their impact on resource objectives.

PRNC INV James E. Thul

019 Black Bear

1. To characterize the timing of hibernation in Florida bears through study of metabolism and blood chemistry.

MNGT IMP This study will provide information on the abundance of wildlife populations to develop habitat management practices.

PRNC INV James R. Brady.

020 Black Bear

1. To develop a population index based on bait station surveys and track counts.

MNGT IMP This study will provide information on the abundance of wildlife populations to develop habitat management practices.

PRNC INV James R. Brady.

021 Whitetail Deer

1. To evaluate the abomasal parasite count technique in relation to other biological factors in natural longleaf pine-turkey oak habitat in northern Florida.
2. To conduct APC surveys on state wildlife management areas and private lands statewide.
3. To document and monitor white-tailed deer disease outbreaks or indications thereof throughout the state.

MNGT IMP Provide information on factors that affect populations of wildlife so as to develop management practices.

PRNC INV Thomas Goodwin.

022 Game Species

1. Determine population status of selected wildlife species relative to previous years.
2. Assess population status on localized areas to formulate specific management needs.
3. Determine breeding chronology of selected species throughout the state.
4. Monitor, evaluate, and compare harvests of commercially valuable wildlife and harvest to population status.

MNGT IMP Provide information on abundance, condition or factors that affect wildlife populations so as to develop population management practices.

PRNC INV Thomas Goodwin.

Georgia

001 Hawks/Eagles/Falcons

1. To experimentally release bald eaglets to the wild through hacking.
2. To systematically search for bald eagle nests and color-marked birds hacked in previous years.

MNGT IMP This project will result in the introduction of endangered species into suitable habitats to restore populations.

002 Reptiles

1. Determine the average clutch size of alligator nests.
2. Determine success and hatching rates of alligators.
3. Determine the sex ratio of the subadult and adult alligator population.
4. Determine the size class composition of the alligator population.
5. Determine annual growth rate of alligators in each size class.

MNGT IMP This study will provide information on abundance and condition of endangered species population to develop population management practices.

PRNC INV Steve Ruckel.

003 All Wildlife

1. To determine the cause of outbreaks in wildlife disease and advise on control measures.

PRNC INV Joe Kurz

TELE 404/656-3522.

004 Tree Ducks

1. Determine the value of flooded timber as potential wood duck nesting sites in a public utility storage pool reservoir.

MNGT IMP Be used to overcome or moderate biological limiting factors that affect the growth or well-being of wildlife populations.

PRNC INV Terry W. Johnson.

005 Ducks

1. To band waterfowl quotas as assigned Georgia in the U.S. Fish and Wildlife Service, migratory game bird banding needs.

PRNC INV Oscar Dewberry.

006 Whitetail Deer

1. To reconstruct and project regional deer population levels.
2. To evaluate regional non-harvest mortality of deer.
3. To evaluate regional deer herd condition.
4. To document distribution and possible severity of epizoctic hemorrhagic disease within Georgia.

PRNC INV Carroll Allen.

007 Game Species

1. To determine total hunting pressure and harvest of Georgia game species by resident gun hunters.

PRNC INV Ron R. Odom.

008 Coyote

1. To establish a "coyote call-back index" in selected counties of Georgia.
2. To determine the authenticity and magnitude of coyote damage to livestock and crops.

PRNC INV William L. Cooper

009 Furbearers

1. To determine age and sex composition of selected furbearers species from the harvest.

PRNC INV Tip Hon.

010 Furbearers

1. To index annual trends in statewide furbearer populations.

MNGT IMP Provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Tip Hon.

011 Quail

1. To formulate an annual quail production index on a physiographic region and statewide basis.
2. To formulate an annual hunting index on a physiographic region and statewide basis.

PRNC INV Ronald Simpson.

012 Turkey

1. To provide data on annual turkey production by brood observation reports.

2. To formulate an annual hunting index by physiographic region and statewide.

PRNC INV Ronald Simpson.

O13 Game Species

1. To determine annual bow-hunting pressure and harvest for selected Georgia game species.

PRNC INV Ron R. Odom.

O14 Furbearers

1. To determine trapping harvest of each furbearing species in Georgia.

PRNC INV Ron R. Odom.

O15 Waterfowl

1. Conduct waterfowl surveys on all major wintering areas of the state to determine species composition and distribution.

PRNC INV Oscar Dewberry.

O16 Whitetail Deer

1. Determine herd condition, reproductive preformance, and population levels of deer on Wildlife Managmenet Areas.

PRNC INV Kent Kammermeyer.

O17 Whitetail Deer

1. Compile a list of cooperating hunting clubs from which deer harvest information could be solicited.
2. Collect deer harvest data from cooperating clubs.
3. Analyze harvest data collected and summarize the results by county.

PRNC INV Steve C. Johnson.

O18 Tree Ducks

1. Monitor Wood Duck productivity trends in Georgia.

PRNC INV Terry W. Johnson.

019 Furbearers

1. Obtain information on annual trends in otter populations, and simultaneously gather data on mink, raccoon, and others.
2. Gather comparable base line data for these species from intensive surveys of several large unexploited tracts.
3. Analyze data annually and formulate recommendations.

PRNC INV Tip Hon.

020 Black Bear

1. Determine relative densities and distribution of black bears in North Georgia.

PRNC INV David M. Carlock.

021 Mourning Dove

1. To provide an index tc the Georgia mourning dove breeding population.

PRNC INV Jim Scharnagel.

022 Mountain Lion

1. To document reported cougar sightings in Georgia.

PRNC INV Ron Odom

TELE 404/557-2532.

023 Herons/Bitterns

1. To determine the location and species composition of wading bird rookeries in Georgia.

PRNC INV Ron Odom

TELE 404/557-2532.

Guam

001 Feral Pigs

1. To determine population abundance and distribution of wild pigs.
2. To monitor harvest of wild pigs on Guam.
3. To prepare a status report for planning future work.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing wild pig on Guam.

PRNC INV Paul Conry

TELE 371/734-3944.

002 Cervids

1. To determine abundance and distribution of Guam deer.
2. To monitor harvest of Guam deer.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing deer on Guam.

PRNC INV Paul Conry

TELE 671/734-3944.

003 Bats

1. To monitor the status and distribution of Marianas fruit bat.
2. To determine movement patterns and habitat utilization of Marianas fruit bat.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing the Marianas fruit bat on Guam.

PRNC INV Gary Wiles

TELE 671/734-3944.

004 Nongame Birds

1. To monitor and determine status of native land birds on Guam.
2. To determine presence and impact of avian disease on Guams' bird populations.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing the native land birds on Guam.

PRNC INV R. Beck

TELE 671/734-3944.

005 Columbiforms

1. To determine population levels, distribution and harvest of the Philippine turtle dove and black francolin.

2. To prepare a status report for Philippine turtle dove and black francolin on Guam.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing the Philippine turtle dove and black francolin on Guam.

PRNC INV Paul Conry

TELE 671/734-3944.

Hawaii

001 Waterfowl

1. To propagate endangered-threatened species for release.
2. To develop and implement predator protection for Nene.
3. To provide information and educational materials regarding endangered-threatened species to public to aid in recovery. Species of concern include alala, nene, koloa, and Laysan duck.

MNGT IMP Increase of E/T species in wild may effect their removal from endangered-threatened list. Protection from predators may allow Nene population to increase to achieve sufficient breeding in wild. Information and education may reduce accidental take, poaching, and habitat destruction.

PRNC INV Ron Walter

TELE 808/548-2861.

002 Cervids, Bovids

1. To determine status, trends and utilization of game mammals and their associated habitats in Hawaii. Species involved include Axis deer, mouflin, feral sheep and goats.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing game mammals in Hawaii for the most long-term benefits for the public.

PRNC INV Ron Walker

TELE 808/548-5917.

003 Quail, Pheasant, Turkey, Grouse

1. To determine status, trends and utilization of game birds and their associated habitats in Hawaii (Quail, pheasants, turkey, francolin).

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing upland game including turkey populations in Hawaii for the most long-term benefits for the public.

PRNC INV Ron Walker

TELE 808/548-5917.

004 Galliforms

1. To determine life cycle and means of controlling Molasses Grass by encouraging establishment of Carpet Grass.

MNGT IMP Provide information and technology for controlling Molasses Grass by encourageing the establishment of Carpet Grass to enhance habitat conditions for upland Game Birds on the Island of Kauai of State of Hawaii.

PRNC INV Thomas Telfer

TELE 808/548-5917.

005 Marsupials

1. To determine the range, population size, causes of range and population fluctution and taxonomic status of the Rock Wallaby on the Island of Oahu of Hawaii.

MNGT IMP Provide information on population size, distribution, taxonomic status, and factors affecting population size and distribution that is necessary for developing management policies for the Rock Wallaby, classified as game animal in Hawaii.

PRNC INV Timothy Sutterfield

TELE 808/548-5921.

006 Nongame Birds

1. To determine status of palila in Hawaii County.
2. To determine status of endemic forest birds, particularly the alala.

MNGT IMP Provide information for purpose of developing appropriate strategies for managing eudemic forest birds in Hawaii for the most long term benefits for the public.

PRNC INV Ron Walker

TELE 808/548-5917.

007 Geese

1. To determine status and monitor nene populations of Islands of Hawaii and Maui.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing the nene including reestablishing in native habitat in Hawaii for the most long-term benefits for the public.

PRNC INV Ron Walker

TELE 808/548-5917.

008 Nongame Birds

1. To monitor abundance, population trends, and limiting factors of selected species in Kauai, Maui and Oahu counties of Hawaii.

MNGT IMP Provide information for the purpose of developing strategies from managing certain seabirds in Hawaii for the most long-term benefits for the public.

PRNC INV Ron Walker

TELE 808/548-5917.

009 Waterfowl, Nongame Birds

Hawaii

1. To determine status and monitor endangered waterbird populations including stilt, coot, galinule, koloa.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing waterfowl species in Hawaii for the most long-term benefits for the public.

PRNC INV Ron Walker

TELE 808/548-5917.

001 Caribou, Grizzly Bear

1. Develop plans.
2. Capture Canadian caribou.
3. Transplant.
4. Monitor.
5. Monitor compliance to Forest Service Road closure and report violations.
6. Develop and implement plans.
7. Increase mountain caribou populations to reduce current constraints on other resource management.
8. Assure that habitat protection is being complied with.

PRNC INV Dr. John Beechman

TELE 208/334-2920.

002 Caribou

1. Plans will be developed and implemented to capture Canadian mountain caribou and transplant them to other areas. A monitoring program will be undertaken.

MNGT IMP To increase mountain caribou populations to reduce current constraints on the resources.

PRNC INV Dr. John Beechman

TELE 208/334-2920.

003 Grizzly Bear

1. To monitor compliance to Forest Service road closure and report violations.

MNGT IMP Assure that habitat protection for the grizzley bear is being complied with.

PRNC INV Dr. John Beechman

TELE 208/334-2920.

004 Grizzly Bear

1. Determine status.
2. Map habitat.

MNGT IMP Status and designation of grizzly bear habitat.

PRNC INV John Beechman

TELE 208/334-2920.

005 Fisher

1. Determine population densities and habitat use.

Idaho

MNGT IMP provide information in basic ecology of the fisher introduction in South Fork of Clearwater drainage in Idaho in 1961, for developing effective management strategies for the fisher in Idaho.

006 Grouse

1. To Determine impacts of habitat alteration in sage grouse.
2. To Develop and evaluate inventory techniques or population estimators of sage grouse.

PRNC INV Robert E. Autenrieth

TELE FTS: 8-554-4350.

007 Wild Sheep

1. Determine movements, distribution and habitat preference of specific bighorn herds. (St. I)
2. Develop standardized census and inventory techniques for bighorn sheep in Idaho.

MNGT IMP Provide information and techniques that will aid in developing management strategies for California bighorn sheep in Idaho.

008 Mule Deer

1. To identify and describe mule deer herds in two Game Management units (ST 1-I).
2. To Identify and describe environmental components providing security to mule deer and behavioral adaptations used to achieve security by mule deer (ST. 1-III; 12-I).
3. To Determine hunting and habitat securuty influence on mule deer behavior and mortality. (ST.1-III; 12-I).
4. To Develop, evaluate and implement mule deer sightability models to determine unbiased estimates of population size (ST. 11-I).

MNGT IMP provide information essential to management for developing more effective management strategies for the mule deer in Idaho.

009 Elk

1. To Determine elk habitat use in general and as influence of by hunting in Clearwater drainage. (ST. I, III).
2. To Determine bull elk home range in Clearwater drainage (ST. I).
3. To Develop, evaluate, and implement elk sightability models to determine unbiased estimates of population size and age/sex ratio to Clearwater drainage of Idaho (St. II).
4. To Determine habitat used by elk during the hunting season in Clearwater drainage of Idaho (St III).
5. To Determine elk mortality during fall hunting seasons in the Clearwater drainage of Idaho (St IV).

MNGT IMP provide information to management on elk habitat use and develop a model for more accurately estimating elk population numbers from aerial counts for the purpose of developing appropriate strategies for managing elk in Idaho.

010 Cervids

1. Provide support for research and management activities, such as food habits, ageing analysis, testing and evaluation of techniques.

MNGT IMP Provide analytical service supporting other investigative missions directed to collect information for developing appropriate strategies essential to manage all wildlife species in Idaho for the benefit of the public.

PRNC INV Pat Wakkinen

TELE FTS: 8-554-3725.

011 Whitetail Deer

1. To determine herd composition, trends, and range conditions.
2. To determine harvest and other mortality.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing white-tailed deer in Idaho.

PRNC INV Lloyd Oldenburg

TELE 208/334-2920.

012 Mule Deer

1. To determine herd composition, trends and range conditions.
2. To determine harvest and other mortality.

MNGT IMP Provide information for the purpose of developing appropriate strategies for establishing and directing management programs for mule deer in Idaho.

PRNC INV Lloyd Oldenburg

TELE 208/334-2920.

013 Big Game

1. Determine harvest of big game species in each game management unit.

MNGT IMP Provide information on harvest of hunted wildlife for the purpose of developing appropriate strategies for management of these species in Idaho for the benefit of the public.

PRNC INV Dr Lou Nelson

TELE 208/334-2920.

014 Elk

1. To determine composition of elk herds in State.
2. Conduct annual census and trend counts.
3. Collect harvest information.

MNGT IMP Provide information for the purpose of developing appropriate strategies for establishing and directing management programs for elk in Idaho.

PRNC INV Lloyd Oldenburg

TELE 208/334-2920.

O15 Lynx, Bobcat, Otter, Beaver

1. Determine population status and harvest of certain furbearers.

MNGT IMP Provide information for the purpose of developing appropriate strategies for management of furbearer in Idaho.

PRNC INV Lloyd Oldenburg

TELE 208/334-2920.

O16 Waterfowl

1. Determine breeding populations, reproductive success and wintering populations.

MNGT IMP Provide information on breeding and wintering populations of waterfowl fund in Idaho for waterfowl populations occuring in the Pacific Flyway.

PRNC INV Dr. Gary Will

TELE 208/334-2920.

O17 Pheasant, Mourning Dove, Grouse

1. Determine trends and status of various species of upland game including pheasants, mourning doves and prairie grouse.

MNGT IMP Provide information for the purpose of developing appropriate strategies for management of upland game species in Idaho.

PRNC INV Dr. Gary Will

TELE 208/334-2920.

O18 Black Bear

1. To determine harvest and other mortality.

MNGT IMP Provide information for the purpose of developing appropriate strategies for management of the black bear in Idaho.

PRNC INV Lloyd Oldenburg

TELE 208/334-2920.

019 Mountain Lion

1. To determine harvest and other mortality.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing the mountain lion in Idaho.

PRNC INV Lloyd Oldenburg

TELE 208/334-2920.

020 Pronghorn

1. To determine herd composition, trends, and range conditions.
2. To determine harvest and other mortality.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing antelope in Idaho.

PRNC INV Lloyd Oldenburg

TELE 208/334-2920.

021 Moose

1. To determine herd composition, trends, and range condition.
2. To determine harvest and other mortality.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing Moose in Idaho.

PRNC INV Lloyd Oldenburg

TELE 208/334-2920.

022 Mountain Goat

1. To determine herd composition, trends and range conditions.
2. To determine harvest and other mortality.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing mountain goat in Idaho.

PRNC INV Lloyd Oldenburg

TELE 208/334-2920.

Idaho

023 Wild Sheep

1. To determine herd composition, trends, and range conditions.
2. To determine harvest and other mortality.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing bighorn sheep in Idaho.

PRNC INV Lloyd Oldenburg

TELE 208/334-2920.

024 All Wildlife

1. Determine if proposed developments affecting the environment will have on wildlife.
2. Recommend to minimize or mitigate for any losses.
3. Species planning and project document review.

MNGT IMP Provide information for the purpose of determining impact of of various agencies' resource plans for development or utilization of habitat components and ultimately minimize or establish mitigative measures for wildlife species affected.

PRNC INV Dr. Carl Nellis

TELE 208/334-2920.

025 Elk

1. To determine hunter success and sex and age of elk kill by drainage in Region 1.
2. To compare cost of mandatory hunter check to phone surveys.

MNGT IMP Provide information for determining the effectiveness of mandatory hunter check station and the telephone hunter survey methods for collecting elk harvest data required for developing appropriate strategies for managing elk in Idaho.

PRNC INV Paul L. Hanna

TELE 208/664-9236.

001 Quail

1. Collect wings for sexing and ageing.
2. Record incidences of calling activities.
3. Locate coveys by monitoring vocalization prior to roosting and upon breakup of roost.

MNGT IMP This study will provide information on the abundance, condition, of factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV J. Ellis

TELE 217/782-6424.

002 Pheasant

1. Record crowing activities.
2. Record pheasant production on census route.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV J. Ellis

TELE 217/782-6424.

003 Cottontail

1. To record incidence of road killed rabbits.
2. To determine population trends of cottontails.
3. To elucidate the role of tularemia in regulating cottontail populations.

MNGT IMP This study will provide information on the abundance, condition or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV J. Ellis

TELE 217/782-6424.

004 Raccoon

1. To determine population trends and characteristics for the raccoon in Illinois.
2. To record the statewide incidence of road kills.
3. Spotlight Survey. Bacula collections.
4. To record data from harvested raccoons.
5. Live trapping and tagging.
6. To live trap and mark raccoons.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV J. Ellis

TELE 217/782-6424.

Illinois

005 Coyote

1. Census summer populations of coyotes.
2. To record coyote sightings by successful deer hunters.
3. Collect data on sex, age, weight, productivity and mortality factors of coyotes in Illinois.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV J. Ellis

TELE 217/782-6424.

006 Fox

1. Collect data on sex, age, weight, productivity and mortality factors on red and gray foxes in Illinois.

MNGT IMP this study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV J. Ellis

TELE 217/782-6424.

007 Opossum

1. Determine population trends of opossum in Illinois.
2. Rood kill survey

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV J. Ellis

TELE 217/782-6424.

008 Furbearers, Upland Game

1. Collect information on annual hunter and non-resident hunter harvest of upland game species and furbearers.
2. Collect information of trapper harvest of furbearers in Illinois.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV J. Ellis

TELE 217/782-6424.

3 Skunk

1. Determine population trends and characteristics for striped skunk in Illinois.
2. Road kill survey.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV J. Ellis

TELE 217/782-6424.

O10 Whitetail Deer

1. To determine and monitor the health of deer in parts of Illinois that should reflect environmental and herd quality.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Alan Woolf

TELE 618/536-7766.

O11 Turkey

1. To re-establish wild turkeys in suitable areas.
2. To investigate survival, productivity, and dispersal of newly released turkeys in west-central Illinois.

MNGT IMP This study will result in the introduction of wildlife species into suitable habitats to restore populations.

PRNC INV Forrest D. Loomis

TELE 309/374-2496.

O12 Whitetail Deer

1. To determine the rate and cause of fawn mortality in an exploited herd.
2. To evaluate methods of obtaining this data.
3. To relate population and temposal variation in mortality to genetic variation, physical condition of dam and offspring, climatic influences, and coyote predation.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Alan Woolf

TELE 618/536-7766.

O13 Whitetail Deer

Illinois

1. To design, implement, and evaluate possible alternative strategies for management and control of urban deer with special respect to deer in northeastern Illinois.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat .managemet practices.

PRNC INV Glen C. Sanderson

TELE 217/333-6880.

O14 Whitetail Deer

1. To analyze data collected in this study and to provide the DOC with models of population dynamics, seasonal movement patterns, and use of plant communities by deer in central Illinois.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Charles M. Nixon

TELE 217/333-6880.

O15 Whitetail Deer

1. To quantify pertinent aspects of life history, including behavior, movements, landscape use, ecology, abundance, distribution, dynamics, health, physiology, and distribution of deer in metropolitan areas of northeastern Illinois relative to and necessary for successful management and herd control in that area.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Glen Sanderson

TELE 217/333-6880.

O16 Whitetail Deer

1. To compile, organize, computerize, and generally manage for access and preservation the quantity and diverse array of data resulting from the urban deer study.
2. To integrate project generated data into one of the comprehensive sys- tems of data base management systems currently being developed by the Natural History Survey.
3. To generate the various file and management reports, scientific and professional manuscripts for publication, and news released for local and statewide distribution.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Glen C. Sanderson

TELE 217/333-6880.

O17 Whitetail Deer

1. To develop management strategies for maintaining desirable levels of abundance and harvest on a regional basis.
2. To prepare a management bulletin incorporating these findings.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habita6t management practices.

PRNC INV Lonnie P. Hansen

TELE 217/333-6880.

O18 Whitetail Deer

1. To map, measure, and otherwise quantify and qualify the present and po- tential habitable deer range in northeastern Illinois including assess- ments of present impacts of deer on vegetation.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Glen C. Sanderson

TELE 217/333-6880.

O19 Cervids

1. To analyze previously collected data.
2. To provide the IDOC with an appraisal of deer range for central and northern Illinois.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Charles M. Nixon

TELE 217/333-6880.

O20 Canada Geese

1. To establish the continuity of use of a given refuge by given units of geese.
2. To identify movements such as refuge interchange, dispersal, egress, ingress related to food, hunting, weather, etc.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Alan Woolf

TELE 618/536-7766.

Illinois

021 Canada Geese

1. To produce an analysis of inter-breeding and wintering area migration of the southern Illinois wintering population with special emphasis on intermediate staging areas as they affect migration and physiological condition.

MNGT IMP Provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Allan Woolf

TELE 618/536-7766.

022 Canada Geese

1. To investigate the hunter harvest as it relates to relative impact on th the early and late migrant flocks.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Alan Woolf

TELE 618/536-7766.

023 Canada Geese

1. To establish a more precise analysis of the migration of the southern Illinios wintering population with special emphasis on migratory be- havior and physiological condition as affected by intermediate staging areas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Alan Woolf

TELE 618/536-7766.

024 Canada Geese

1. To provide a better understanding of the actural and/or potential contribution of each refuge in Illinois and adjacent states with special emphasis on the southern Illinois region as evidenced by goose utilization.

MNGT IMP This study will be used to assess management practices to determine their effectiveness toward accomplishment of management goals.

PRNC INV Alan Woolf

TELE 618/536-7766.

Illinois

025 Canada Geese

1. To delineate more precisely nesting grounds of southern Illinois win- tering population.
2. To contribute a better insight into this population's annual breeding and reproduction.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Alan Woolf

TELE 618/536-7766.

026 Canada Geese

1. To analyze results from jobs 1 through 6 and prepare quarterly, annual, and final reports which summarize and discuss findings.

MNGT IMP This study will provide information to assist the public, resource managers, and others in interpreting, understanding and utilizing research results.

PRNC INV Alan Woolf

TELE 618/536-7766.

Indiana

001 Turkey

1. Develop methodology for identifying potential wild turkey range in Indiana.

MNGT IMP This study will result in the introduction of wildlife species into suitable habitats to restore populations.

PRNC INV John C. Olson

TELE 317/232-4080.

002 All Wildlife

1. Determine population densities of, habitat use by, and pesticide levels in wildlife under conservation tillage practices.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV John Cactiale

TELE 317-232-4080.

003 Insects

1. To determine tick species, range, hosts in Indiana and pathogens they carry in relation to wildlife.
2. To determine the species of ticks present on imported and transplanted wildlife.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV Bob Feldt

TELE 317/232-4080.

004 Small Game, Galliforms

1. Estimate annual status and trend of the small game harvest in Indiana. Species include: rabbit, squirrel and quail, pheasants.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV Robert Rolley

TELE 317/232-4080.

005 Quail

1. To monitor annual changes in breeding populations of northern bobwhite in Indiana.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV John S. Castrale

TELE 317/232-4080.

006 Waterfowl

1. Develop and maintain a waterfowl disease surveillance program and a contingency plan for each of the major waterfowl areas in the State of Indiana.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV Herald Demaree

TELE 317/292-2532.

007 Pheasant

1. Determine annual changes in pheasant density and habitat in northern Indiana.

MNGT IMP This study will result in the protection, development, or improvement or wildlife habitat to sustain or enhance wildlife populations.

PRNC INV Robert Rolley

TELE 317/232-4080.

008 Waterfowl, Migratory Game Birds

1. Determine annual mourning dove and woodcock breeding populations;
2. Determine indices of annual waterfowl production, harvest, and fall and winter population trends.
3. Meet continental banding program goals in Indiana.
4. Participate in Mississippi Flyway management activities.
5. Determine mourning dove harvest.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV D. Sporre

TELE 219/843-4841.

009 Grouse, Turkey

1. To determine population and harvest trends of turkey and Grouse.

Indiana

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV Steve E. Backs

TELE 317/232-4080.

010 Whitetail Deer

1. To identify activity patterns of depredating deer.
2. To determine their vulnerability to harvest.
3. To make recommendations to alleviate depredation damage.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV John Olson

TELE 317/232-4080.

011 Whitetail Deer

1. To determine if sampling effort at deer check stations can be reduced without reducing the detection of harvest changes between years and areas and to determine whether changes are related to environmental factors, hunter pressure, and estimated population size and sex and age composition.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Robert E. Rolley

TELE 317/232-4080.

012 Whitetail Deer

1. To prepare annual harvest recommendations for white-tailed deer S/W and on Camp Atterbury, Jefferson Proving Grounds, Charlestown Army Ammunition Plant, Crane Naval Weapons Support Center and selected Fish and Wildlife Areas.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV John Olson

TELE 317/232-4080.

013 Furbearers

1. To provide harvest recommendations for furbearers based on the annual raccoon population index and past numbers and values of pelts marketed and trapper harvest, distribution, and pressure.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV John Olson

TELE 812/334-1137.

014 Whitetail Deer

1. To develop guidelines for determing time of death of white-tailed deer by rigor mortis, algor mortis, and response to electrical stimulation.

MNGT IMP This study will provide information to assist the public, resource managers, and others in interpreting, understanding, and utilizing research results.

PRNC INV John C. Olson

TELE 317/232-4080.

Iowa

001 Mollusks

1. To protect the 3 highest priority D. macclintocki sites occurring on private land in Iowa.

MNGT IMP This project will result in the protection, development, or improvement of endangered species habitat to sustain or enhance endangered species populations.

PRNC INV Dean Roosa

TELE 515/281-8676.

002 Terrestrial Plants

1. To survey suitable Iowa habitat for additional Aconitum noveboracense colonies.

MNGT IMP This project will result in the protection, development, or improvement of endangered species habitat to sustain or enhance endangered species populations.

PRNC INV Dean Roosa

TELE 515/281-8676.

003 Terrestrial Plants

1. To obtain detailed information on specified natural history aspects in Iowa.
2. To monitor known colonies for population changes and threats.

MNGT IMP This project will result in the protection, development, or improvement of endangered species habitat to sustain or enhance endangered species populations.

PRNC INV Dean Roosa

TELE 515/281-8676.

004 Terrestrial Plants

1. To protect monkshood sites that occur on private land in Iowa.

MNGT IMP This project will result in the protection, development, or improvement of endangered species habitat to sustain or enhance endangered species populations.

PRNC INV Dean Roosa

TELE 515/281-8676.

005 Mollusks, Terrestrial Plants

1. To acquire 2 sites containing both D. macclintocki and A. noveboracense.

MNGT IMP This project will result in the protection, development, or improvement of endangered species habitat to sustain or enhance endangered species populations.

PRNC INV Dean Roosa

TELE 515/281-8676.

006 Whitetail Deer

1. To identify the phenology, economic impact, and permanency of damage to agricultural crops and natural vegetation caused by deer in refuges.
2. To relate depredation to environmental conditions, crop practices, deer behavior and movements, and deer densities.

PRNC INV DeWaine Jackson.

Kansas

001 Grouse

1. To determine sharp-tailed grouse habitat potential, potential for acquisition of wild trapped birds, and literature review of grouse management techniques.
2. To monitor success of released grouse.

MNGT IMP The state will have one more native game bird to manage.

PRNC INV Randy Rodgers

TELE 913/628-8614.

002 Grouse

1. To determine the availability of grouse habitat in Kansas and the availability of wild trapped birds.
2. To monitor success of released grouse.

MNGT IMP The state will have one more native game bird to manage.

PRNC INV Randy Rogers

TELE 913/628-8614.

003 Nongame Birds

1. To reestablish breeding population of mountain plover, in west central Kansas.

MNGT IMP The state will be able to upgrade the status of the species.

PRNC INV Marvin Schwilling

TELE 316/342-0658.

004 Otter

1. Reestablish breeding populations of river otter in south central Kansas.

MNGT IMP The state will have one more native furbearer to manage.

PRNC INV Lloyd Fox

TELE 316/672-5911.

001 Whitetail Deer

1. To determine the frequency and distribution of deer mortalities (non-hunting) as an index to changes in deer population size and distribution.
2. To determine trends in deer density in selected counties.
3. To estimate annual statewide deer harvest and obtain data on biological parameters of harvested deer

MNGT IMP The results of this study should provide information on the abundance, condition, or factors that affect white-tailed deer populations so as to develop population and habitat management practices

PRNC INV John Philips.

002 Turkey

1. To determine the distribution and size indices of wild turkey populations.
2. To determine annual wild turkey harvest.

004

MNGT IMP The results of this study will provide information on the abundance and condition of turkey populations to be used to develop population and habitat management practices.

PRNC INV George Wright.

003 Small Game

1. To determine annual and long-term dove population trends.
2. To determine age structure and the incidence of glandular crop activity in harvest mourning doves.
3. To determine relative population levels, trends and production rates of quail and rabbits.
4. To determine trends of grouse populations on restoration areas.

MNGT IMP Results of this survey will provide information on the abundance and condition of wildlife populations for use in the development of population and habitat management practices.

PRNC INV Jimmy May.

004 Game Species

1. To obtain hunter participation and game harvest data on specified wildlife management areas.

MNGT IMP This study will provide information on public use and demand for wildlife which will be used to determine programs or actions to meet the demand.

PRNC INV Ron Schureman

005 Hardwoods

1. To obtain annual evaluations of mast production.

MNGT IMP Provide information on habitat carrying capacity to develop populations and habitat management practices.

PRNC INV Harold Barber.

Kentucky

006 Furbearers

1. To determine distribution and trends in populations of furbearers.
2. To determine size, composition and distribution of the fur harvest.

MNGT IMP To provide information on public use and demand and abundance and condition of furbearer populations so as to develop population and habitat management practices.

PRNC INV Tom Edwards.

007 All Wildlife

1. To detect, report, and determine the cause and effects of disease and parasitism in wildlife populations and to devise and initiate control measures.

MNGT IMP Results of this study will provide information which will be used to overcome or moderate biological limiting factors that affect the growth and well-being of wildlife populations.

PRNC INV Ellis R. Carter.

008 Waterfowl

1. To determine the distribution and abundance of waterfowl in Kentucky.
2. To determine the number of wood ducks and broods on established routes annually.
3. To determine waterfowl harvest trends and hunter activity in Kentucky.
4. To band waterfowl in accordance with assigned quotas.

MNGT IMP This study will provide information on the abundance and condition of waterfowl populations to be used to develop population and habitat management practices.

PRNC INV Vernon Anderson.

009 Whitetail Deer

1. To determine the extent and causes of mortality of introduced and resi- dent female white-tailed deer in the Cumberland Plateau of eastern Kentucky.
2. To determine movement patterns and habitat use of introduced female white-tailed deer in the Cumberland Plateau of eastern Kentucky.

MNGT IMP This study will provide information which will be used to overcome, or moderate biological limiting factors that affect the growth or well-being of white-tailed deer populations.

PRNC INV William McComb.

001 Waterfowl

1. To determine migration characteristics, relative size and distribution of waterfowl populations in Louisiana in fall and winter.
2. To assess annual water conditions and waterfowl production, and familiarize selected personnel with Canadian and U.S. waterfowl breeding.
3. To determine the migration characteristics, relative size, and distribution of migratory Canada geese in Louisiana.
4. To determine the relative size and distribution of Mottled ducks in the agricultural fields in Southwest Louisiana, during winter periods as well as the nesting season.
5. To determine oak mast production on State managed green tree reservoirs and compare production with adjacent areas.

MNGT IMP Provide information on the abundance, condition, or factors that affect wildlife populations to develop population and habitat management practices.

PRNC INV Charles M. Smith.

002 Whitetail Deer

1. To determine physical condition of deer in the harvest and correlate to age class, population density, antler development and adult-fawn ratio.
2. To evaluate deer habitats throughout the state.
3. To monitor deer herd disease, parasite and other mortality factors.

MNGT IMP Provide information on abundance, condition or factors that affect wildlife populations so as to develop population and habitat management practices.

PRNC INV J.W. Farray.

003 Turkey

1. To identify areas of suitable turkey habitat that should be restocked.
2. To determine the basic factors responsible for the success or failure of turkey releases.
3. To determine seasonal home ranges, habitat preference, nesting success, brood habitat preferences, poult survival and brood ranges.
4. To determine the food preferences and food utilization of wild turkeys in various habitat types in Louisiana.

MNGT IMP Results in the introduction of wildlife species into suitable habitats to restore populations.

PRNC INV Dan Dennett, Jr.

004 Mourning Dove

1. To determine changes in the dove breeding population in the Eastern Management Unit. (Call-count).

MNGT IMP Provide information on the abundance, condition or factors that affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Larry Soileau.

Maine

001 Hawks/Eagles/Falcons

1. To re-introduce peregrine falcons to former habitats through hacking.

MNGT IMP This project will result in the introduction of peregrine falcons into suitable habitats to restore populations.

PRNC INV Alan Hutchinson

TELE 207/941-4470.

002 Waterfowl

1. To determine population status and habitat needs of migrating brant in Maine.
2. To determine distribution and abundance of molting eiders.
3. To conduct life history of Maine birds.
4. To monitor the presence and evaluate the impact of diseases and contaminants in marine birds.

PRNC INV Pat Corr

TELE 8/868-3651.

003 Nongame Birds, Waterfowl

1. To monitor populations of marine wildlife including brant, eider, osprey, guillemots, and puffins.

PRNC INV Pat Corr

TELE 8/868-3651.

004 Canada Geese

1. To establish naturally reproducing populations of Canada Geese in various locations.

PRNC INV Pat Corr

TELE 8/868-3651.

005 Woodcock

1. To monitor woodcock population.

PRNC INV Pat Corr

TELE 8/868-3651.

006 Woodcock

1. To monitor woodcock population.

MNGT IMP This project will provide information on the abundance, condition or factors affecting woodcock populations.

PRNC INV Pat Corr

TELE 8/868-3651.

007 Waterfowl

1. To determine population status and habitat needs of migrating brant in Maine.
2. To determine distribution and abundance of molting eiders.
3. To conduct life history of Maine birds.
4. To monitor the presence and evaluate the impact of diseases and contaminants in marine birds.

MNGT IMP This project will provide information on the abundance, condition, or factors affecting waterfowl populations.

PRNC INV Pat Corr

TELE 8/868-3651.

008 Canada Geese

1. To establish naturally reproducing populations of Canada Geese in various locations.

MNGT IMP This project will result in the introduction of Canada geese into suitable habitats to restore populations.

PRNC INV Pat Corr

TELE 8/868-3651.

009 Nongame Birds, Waterfowl

1. To monitor populations of marine wildlife including brant, eider, osprey, guillemots, and puffins.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect Marine bird populations to develop population and habitat management practices.

PRNC INV Pat Corr

TELE 8/868-3651.

010 Whitetail Deer

1. To collect biological data necessary for monitoring deer populations.

PRNC INV Gerry Lavigne

Maine

TELE 8/833-3651.

O11 Moose

1. To collect biological data necessary for monitoring moose populations.

PRNC INV Kim Morris

TELE 8/833-3651.

O12 Moose

1. To collect biological data necessary for monitoring moose populations.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect moose populations to develop population and habitat management practices.

PRNC INV Karen Morris

TELE 207/941-4470.

O13 Black Bear

1. To collect biological data necessary for monitoring bear populations.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect bear populations to develop population and habitat management practices.

PRNC INV George Matula

TELE 207/941-4470.

O14 Black Bear

1. To collect biological data necessary for monitoring bear populations.

PRNC INV George Matula

TELE 8/833-3651.

O15 Whitetail Deer

1. To collect biological data necessary for monitoring deer populations.

MNGT IMP This project will provide information on the abundance, condition or factors which affect white-tailed deer populations to develop population and habitat management practices.

PRNC INV Gerry Lavigne

TELE 207/941-4470.

016 Furbearers

1. To characterize seasonal habitat used by bobcats and coyotes.
2. To estimate exploitation rates, populations, and recruitment rates of fisher, marten, bobcat and otter.

PRNC INV John Hunt

TELE 207/672-3222.

017 Mink, Beaver

1. To compile data on the amount of aquatic habitat available to aquatic furbearers.

PRNC INV John Hunt

TELE 207/672-3222.

018 Furbearers

1. To develop model species plans.
2. To maintain fur harvest records.

PRNC INV John Hunt

TELE 207/672-3222.

019 Turkey

1. Monitor current population of wild turkeys.

PRNC INV John Hunt

TELE 207/672-3222.

020 Nongame Birds

1. To determine distribution, abundance, composition, and reproduction rate of least terns.
2. To assess factors determining least tern populations.
3. To collect distribution, abundance, and reproduction data concerning piping plovers.

PRNC INV John Hunt

TELE 207/672-3222.

Maine

021 Turkey

1. Monitor current population of wild turkeys.

MNGT IMP This project will result in the introduction of wild turkey into suitable habitats to restore populations.

PRNC INV John Hunt

TELE 207/672-3222.

022 Furbearers

1. To develop model species plans.
2. To maintain fur harvest records.

MNGT IMP This project will be used to assess management practices to determine their effectiveness toward accomplishment of management goals.

PRNC INV John Hunt

TELE 207/672-3222.

023 Furbearers

1. To characterize seasonal habitat used by bobcats and coyotes.
2. To estimate exploitation rates, populations, and recruitment rates of fisher, marten, bobcat and otter.

MNGT IMP This project will provide information on the abundance, condition or factors which affect furbearers to develop population and habitat management practices.

PRNC INV John Hunt

TELE 207/672-3222.

001 Mourning Dove

1. To provide annual estimates of population levels for mourning dove.

MNGT IMP This project will provide information on the abundance of doves so as to develop population management strategies.

PRNC INV Josh Sandt

TELE 301/827-8612.

002 Whitetail Deer

1. To monitor the status of the whitetail deer in Maryland.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect deer populations to develop population and habitat management practices.

PRNC INV Robert Miller

TELE 301/827-8612.

003 Pheasant

1. To determine post-hunting season sex ratios and provide an estimate of breeding population densities.
2. To obtain information on the annual reproduction of pheasants, brood survival and hatching dates in Maryland.

MNGT IMP This project will provide information on the abundance, condition or factors which affect pheasant populations.

PRNC INV Josh Sandt

TELE 301/922-3311.

004 Turkey

1. To determine an index to winter populations and provide trend data for winter population status.
2. To determine nesting success and population trends of wild turkey broods.
3. To determine kill, sex and age composition, and harvest rates of wild turkeys.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect wild turkey populations.

PRNC INV Robert Miller

TELE 301/827-8612.

005 Turkey

Maryland

1. To reintroduce wild turkeys into suitable unoccupied range.

MNGT IMP This project will result in introduction of wild turkey into suitable habitats to restore populations.

PRNC INV Robert Miller

TELE 301/827-8612.

006 Black Bear

1. To determine and assess the distribution and population status of black bears in maryland.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect bear population.

PRNC INV Joe Shugars

TELE 301/269-3195.

007 Diseases

1. To conduct wildlife disease and parasite studies.

MNGT IMP This project will be used to overcome, or moderate biological limiting factors that affect the growth or well-being of wildlife populations.

PRNC INV Randy Davidson

TELE 404/548-1032.

008 All Birds

1. To collect data on the Avifauna of Maryland.

MNGT IMP This project will provide information on the abundance and distribution of breeding birds so as to develop population and habitat management practices.

PRNC INV Gary Taylor

TELE 301/827-8612.

009 Game Species

1. To determine numbers of game species harvested, and estimates of hunter effort in Maryland.

MNGT IMP This project will provide information on public use and demand for wildlife and will aid in the determination of programs or actions to meet the demand.

PRNC INV Josh Sandt

TELE 301/827-8612.

010 Pheasant

1. To expand pheasant range in Maryland.

MNGT IMP This project will result in the introduction of pheasants into suitable habitats to expand the range.

PRNC INV Josh Sandt

TELE 301/827-8612.

011 Woodcock, Mourning Dove

1. To obtain information on dove and woodcock migration through Maryland.

MNGT IMP This project will provide information of abundance of doves and woodcock to develop population and habitat management strategies.

PRNC INV Josh Sandt

TELE 301/827-8612.

012 Diving Ducks

1. To determine the number, age and sex of canvasback harvest in Maryland during the experimental hunting season.

MNGT IMP This project will provide information on the abundance, condition, or factors affecting canvasback populations so as to develop population management practices.

PRNC INV Larry Hindman

TELE 301/827-8612.

013 Diving Ducks

1. To estimate canvasback crippling rate, hunter success, proportion of canvasback in the harvest and sex composition of canvasback during the experimental hunting season.

MNGT IMP This project will gather data to be used to overcome or mediate biological limiting factors that affect canvasback duck populations.

PRNC INV Larry Hindman

TELE 301/827-8612.

014 Waterfowl

1. To determine periodic and annual variations in the distribution and abundance of waterfowl.
2. To determine the effects of management practices on wetland wildlife management areas.

Maryland

MNGT IMP This project will provide information on abundance and condition of waterfowl population to assess and develop management strategies.

PRNC INV Larry Hindman

TELE 301/827-8612.

015 Waterfowl

1. To monitor factors involved in waterfowl mortality, hunter activity, hunter use and regulations.

MNGT IMP This project will be used to overcome or moderate limiting factors that affect waterfowl populations.

PRNC INV Larry Hindman

TELE 301/827-8612.

016 Furbearers

1. To monitor the harvest, distribution, status and trends of certain furbearers.

MNGT IMP This project will provide information on obundance, condition, and distribution of furbearers so as to develop management strategies.

PRNC INV Peter Jayne

TELE 301/827-8612.

017 Waterfowl

1. To determine the status of habitat important to waterfowl.

MNGT IMP This project will result in the protection, development, or improvement of wetland habitat to sustain or enhance populations.

PRNC INV Larry Hindman

TELE 301/827-8612.

018 Waterfowl

1. To determine periodic and annual variations in the distribution and abundance of waterfowl.

MNGT IMP This project will provide information on abundance and condition of waterfowl population so as to develop management strategies.

PRNC INV Larry Hindman

TELE 301/827-8612.

019 Waterfowl

1. To determine periodic and annual variation in the distribution and abundance of waterfowl.

MNGT IMP This project will provide information on abundance and distribution of waterfowl populations so as to develop management strategies.

PRNC INV Larry Hindman

TELE 301/827-8612.

020 Furbearers

1. To monitor the distribution, status and trends of certain furbearers.

MNGT IMP This project will provide information on the abundance and condition of furbeare populations so as too develop population management strategies.

PRNC INV Peter Jayne

TELE 301/827-8612.

021 Pheasant

1. To determine nesting success of ring-necked pheasant in Maryland.

MNGT IMP This project will be used to overcome or moderate biological limiting factors that affect pheasants.

PRNC INV Josh Sandt

TELE 301-827-8612.

022 Waterfowl

1. To determine if zoning the state for waterfowl hunting provides for a more equitable distribution of harvest opportunities.

MNGT IMP This project will assess management techniques to determine their effectiveness toward accomplishment of management goals.

PRNC INV Larry Hindman

TELE 301/827-8612.

023 Hawks/Eagles/Falcons

1. To monitor the distribution, population status and breeding success of osprey.

MNGT IMP This project will provide information on abundance, and distribution so as to develop population and habitat managemet practices.

Maryland

PRNC INV Gary Taylor

TELE 301/827-8612.

024 Bobcat

1. To monitor the distribution, status and trend of the bobcat population.

MNGT IMP This project will be used to assess management practices to determine their effectiveness toward accomplishment of management goals.

PRNC INV Peter Jayne

TELE 301/827-8612.

025 Waterfowl

1. To monitor factors involved in waterfowl mortality, other than hunter activity.

MNGT IMP This project will be used to overcome or moderate biological hunting factors that affect waterfowl populations.

PRNC INV Larry Hindman

TELE 301/827-8612.

026 Woodcock

1. To determine indices of recruitment and hunting success as well as spring breeding population levels for establishment of hunting regulations.

MNGT IMP This project will provide information on abudance, and condition of woodcock so as to develop population and habitat management practices.

PRNC INV Josh Sandt

TELE 301/827-8612.

027 Whitetail Deer, Turkey

1. To determine mast production of fruit-bearing trees as related to deer and turkey food requirements.

MNGT IMP This project will be used to overcome, or moderate biological limiting factors that affect the growth or well-being or most eating wildlife.

PRNC INV Robert Miller

TELE 301/827-8612.

028 Canada Geese

1. To determine periodic and annual variations in the distribution and survival of Canada geese.
2. To determine the effects of management practices on wetland wildlife management areas.

MNGT IMP This project will provide information on abundance, condition and factors that affect goose populations and to develop population and habitat management strategies.

PRNC INV Larry Hindman

TELE 301/827-8612.

029 Fox, Raccoon

1. To determine when furbearer pelts are prime in order to make appropriate season adjustments.

MNGT IMP This project will provide information on physical condition of furbearers so as to develop population management practices.

PRNC INV Peter Jayne

TELE 301/827-8612.

030 Hawks/Eagles/Falcons

1. To complete the development of and statistically validate a technique for determining the breeding density of woodland raptors.

MNGT IMP This project will be used to develop a research method that will provide information on abundance of raptors.

PRNC INV Gary Taylor

TELE 301/827-8612.

031 Fox Squirrel

1. To monitor status of Delmarva fox squirrel and encourage habitat management and maintenance on private lands to ensure a stable population.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect Delmarva Fox squirrel populations so as to develop population and habitat management strategies.

PRNC INV Gary Taylor

TELE 301/827-8612.

032 Quail

Maryland

1. To increase bobwhite quail populations through trapping and transplanting.

MNGT IMP This project will result in the introduction of quail into suitable habitats to restore populations.

PRNC INV Josh Sandt

TELE 301-827-8612.

033 Hawks/Eagles/Falcons

1. To contribute to the re-establishment of a breeding population of peregrine falcons in the eastern U.S. through hock-release of captive progenated birds.

MNGT IMP This project will result in the introduction of falcons into suitable habitats to restore populations.

PRNC INV Gary Taylor

TELE 301/827-8612.

034 Hawks/Eagles/Falcons

1. To monitor the bald eagle breeding population in accordance with the Chesapeake Bay Recovery Plan.

MNGT IMP This project will provide information on the abundance and condition of bald eagle populations so as to develop management strategies.

PRNC INV Gary Taylor

TELE 301/827-8612.

035 Hawks/Eagles/Falcons

1. To determine survival rates, food habits, movement, and nesting site fidelity of juvenile bald eagles.

MNGT IMP This project will be used to overcome or moderate biological limiting factors that affect the growth and well-being of bald eagle populations.

PRNC INV Gary Taylor

TELE 301/827-8612.

036 Hawks/Eagles/Falcons

1. To secure habitat necessary for bald eagle recovery.

MNGT IMP This project will result in the protection, development or improvement of eagle habitat to sustain or enhance populations.

PRNC INV Gary Taylor

TELE 301/827-8612.

037 Fox Squirrel

1. To ensure a stable population through translocation and re-establishment of a viable population in extirpated range.

MNGT IMP This project will result in the introduction of the Delmarva fox squirrel into suitable habitats to restore populations.

PRNC INV Gary Taylor

TELE 301/827-8612.

038 Waterfowl

1. To determine the annual and seasonal changes in Canada goose, greater snow goose, Atlantic brant, black duck and canvasback populations.

MNGT IMP This project will provide information on abundance of selected waterfowl species so as to develop management strategies.

PRNC INV Larry Hindman

TELE 301/827-8612.

039 Waterfowl

1. To determine the status of habitat important to waterfowl

MNGT IMP This project will result in the protection, development or improvement of wetland habitat to sustain or enhance populations.

PRNC INV Larry Hindman

TELE 301/827-8612.

040 Waterfowl

1. To determine incidence of lead shot ingestion by waterfowl in Maryland.

MNGT IMP This project will be used to overcome or moderate biological limiting factors that affect waterfowl populations.

PRNC INV Larry Hindman

TELE 301-827-8612.

Maryland

041 Waterfowl

1. To monitor status and distribution of breeding waterfowl throughout Maryland.

MNGT IMP This project will provide information on the abundance of waterfowl breeding in Maryland, and to develop habitat management strategies.

PRNC INV Larry Hindman

TELE 301-827-8612.

042 Beaver

1. To monitor status of beaver in Maryland.

MNGT IMP This project will provide information on the abundance of beaver so as to develop management strategies.

PRNC INV Peter Jayne

TELE 301-827-8612.

043 Canada Geese

1. To determine the local movement and behavior of Canada geese wintering on certain areas of Maryland's Eastern Shore.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect Canada goose populations so as to develop population and habitat management practices.

PRNC INV Larry Hindman

TELE 301/827-8612.

044 Cottontail, Quail

1. To determine mortality rates, survival rates, and population estimates of cottontail rabbits and bobwhite quail.

MNGT IMP This project will provide information on the abundance, condition or factors that affect rabbit and quail populations so as to develop population and habitat management practices.

PRNC INV Josh Sandt

TELE 301/922-3311.

045 Game Species

1. To gain statistical support in designing and analyzing surveys to provide the necessary information for conducting the wildlife manage- ment program planning process.

MNGT IMP This project will be used to assess management techniques and wildlife data to determine accomplishment of management objectives.

PRNC INV Josh Sandt

TELE 301/827-8612.

046 Herons/Bitterns, Gruiforms

1. To obtain baseline information on habitat use and population levels of colonial water birds.

MNGT IMP This project will provide information on the abundance of colonial waterbirds so as to develop population and habitat management strategies.

PRNC INV Gary Taylor

TELE 301/827-8612.

047 Woodpeckers

1. To investigate reports and sightings of red-cockaded woodpeckers in Maryland.

MNGT IMP This project will provide information on abundance, distribution of endangered species to assist in recovery.

PRNC INV Gary Taylor

TELE 301/827-8612.

Massachusetts

001 Black Bear

1. To determine the range of black bear in Massachusetts.
2. To determine numbers and composition of the harvest.
3. To determine cub production, sow-cub behavior, denning behavior and critical habitat needs.

PRNC INV Jim Cardoza

TELE 617/366-4479.

002 Turkey

1. To re-establish wild turkeys in all habitable range in the Commonwealth.
2. To monitor and evaluate wild turkey population, habitat utilization and limiting factors.

PRNC INV Jim Cardoza

TELE 617/366-4479.

003 Mourning Dove, Woodcock

1. To obtain an index of the spring breeding population of mourning doves.
2. To obtain an index of the spring breeding population of woodcock.

PRNC INV Jim Cardoza

TELE 617/366-4479.

004 Whitetail Deer

1. To maintain the white-tailed deer population at optimum levels.

PRNC INV Jim McDonough

TELE 617/366-4479.

005 Furbearers

1. To determine the statewide harvest of selected game and furbearer species.
2. To conduct surveys pertinent to harvest hunter attitudes, techs, land utilization, etc.
3. To collect biological samples for sex/age-population assessments, etc.

PRNC INV Wayne MacCallum

TELE 617/366-4479.

6 Bobcat

1. To document the status of the bobcat in western Massachusetts.

PRNC INV Wayne MacCallum

TELE 617/366-4479.

007 Cottontail

1. To establish self-sustaining refuge populations of New England cottontails.

PRNC INV James McDonough

TELE 617-366-4479.

008 Puddle Ducks, Canada Geese

1. To band waterfowl in eastern Canada.

MNGT IMP Representative banding of waterfowl in pre-season concentration areas is required in order to obtain data needed on mortality, productivity, hunter pressure, effect of regulations, and general information on migration and distribution of kill.

PRNC INV H. Heusman

TELE 617/366-4479.

009 Puddle Ducks, Canada Geese

MNGT IMP Representative banding of waterfowl in pre-season concentration areas is required in order to obtain data needed on mortality, productivity, hunter pressure, effect of regulations, and general information on migration and distribution of kill.

PRNC INV H. Heusman

TELE 617/366-4479.

010 Waterfowl

1. To inventory waterfowl populations throughout the fall and winter months.

MNGT IMP Information can be used in conjunction with other information to regulate harvest.

PRNC INV H. W. Heusmann

TELE 617/366-4479.

Massachusetts

O11 Waterfowl

1. To participate in Atlantic Waterfowl Council data collection programs.

PRNC INV H. W. Heusmann

TELE 617/366-4479.

O12 Tree Ducks

1. To determine relative costs and feasibility of using plastic pails for nesting boxes.

MNGT IMP Need basic behavior and ecology studies to effectively manage this resource for the benefit of Massachusetts.

PRNC INV H. W. Heusmann

TELE 617/366-4479.

O13 Puddle Ducks, Tree Ducks

1. To meet winter banding quotas for Black Duck.
2. To meet preseason banding quotas for Wood Ducks and Black Ducks.

MNGT IMP Banding is necessary to obtain data on mortality, productivity, hunter pressure and effect of regulations.

PRNC INV H. W. Heusmann

TELE 617/366-4479.

O14 Waterfowl

1. To monitor and analyze any experimental waterfowl season adopted for Massachusetts.

MNGT IMP May impact population levels, age and sex ratios of black ducks and other species.

PRNC INV H. W. Heusmann

TELE 617/366-4479.

O15 Waterfowl

1. To administer the waterfowl program.

PRNC INV H. W. Heusmann

TELE 617/366-4479.

Massachusetts

016 Canada Geese

1. To determine the origins of Canada Geese found in Massachusetts.

MNGT IMP May impact management of local populations of Canada goose, i.e. reducing nuisance problems.

PRNC INV H.W. Heusmann

TELE 617/366-4479.

Michigan

001 Game Species

1. To produce a quantitative description of the correlation of socioeconomic variables to attitudes toward wildlife laws and scientific game management.
2. To produce a correlation of attitudes toward wildlife laws and scientific game management principles with the actual violations of game laws regulations.
3. To produce a multivariate analysis of persons violating the big game regulations using socioeconomic characteristics, attitudes towards wildlife laws and scientific game management, and hunting expectations and satisfactions as discriminating variables.

PRNC INV David Purol

TELE 517/373-1230.

002 Nonspecies Oriented

1. To provide accurate information via appropriate statistical techniques.
2. To assist in developing statistically appropriate study designs.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Harry R. Hill

TELE 517/373-9517.

003 All Wildlife

1. To provide accomplishment units for annual program evaluations, including human dimensions.

MNGT IMP To be used to assess management practices to determine their effectiveness toward accomplishment of management goals.

PRNC INV Tim F. Reis

TELE 517/373-9565.

004 Nonspecies Oriented

1. To work with management, disseminate information and illustrate tech- niques learned from past studies.

MNGT IMP This study will provide information to assist the public, resource managers, and others in interpreting understanding and utilizing results.

PRNC INV Edward E. Langenau, Jr.

TELE 517/373-9358.

005 Black Bear

1. To provide data and techniques needed for black bear management.

MNGT IMP This study will provide information on the abundance, condition, or factors which afect wildlife populations so as to develop population and habitat management practices.

PRNC INV Larry G. Visser.

006 All Wildlife

1. To help formulate and evaluate "mini-research" studies for field biologist.

MNGT IMP This study will be used to assess research techniques to determine their effectiveness toward accomplishment of management goals.

PRNC INV James Hammill

TELE 906/875-6622.

007 Pheasant

1. To determine impact of patchy winter cover on density and distribution.
2. To determine impact of avian and mammal predators on pheasants in islands of adequate-to-good habitat surrounded by intensive agriculture.
3. To determine the success or failure of F1 progeny from pheasants imported from China.
4. To develop another job(s) as a renewed pheasant program in Michigan develops.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV Bob W. Aho

TELE 517/373-9358.

008 Man

1. To determine present and predict future relationship of young people and wildlife.

MNGT IMP This study will provide information on public use and demand for wildlife and will aid in the determination of programs of actions to meet the demand.

PRNC INV Edward E. Langenau, Jr.

TELE 517/373-9358.

009 Nonspecies Oriented

1. To maintain buildings, grounds and other research facilities.
2. To improve or develop facilities according to research needs.

PRNC INV Carl L. Bennett, Jr.

Michigan

TELE 517/373-9436.

010 Whitetail Deer

1. To determine the effects of various harvest strategies on reproduction as influenced by social behavior.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV John J. Ozoga

TELE 906/452-6226.

011 Nongame Wildlife, Hawks/Eagles/Falcons

1. To determine status and needs of selected nongame species.
2. To determine status and needs of red-tailed hawk.

MNGT IMP This project will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV Glenn Belyea

TELE 517/373-9358.

012 Furbearers

1. To provide data for furbearer management; reintroductions, regulations, etc.

MNGT IMP Result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV Dick J. Moran

TELE 517/422-5191.

013 Elk

1. To develop a system of herd management to satisfy demand for public viewing compatible with production of other wildlife, forest products, agricultural crops and hydrocarbons.

MNGT IMP Result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV Dick J. Moran

TELE 517/422-5191.

Michigan

014 Turkey

1. To experimentally evaluate turkey permit systems to enable optimal hunting opportunity and satisfaction.
2. To determine best system to minimize hunter concentration, violation, trespass and interference.
3. To evaluate economic B : C of turkeys on local communities under dif- ferent permit systems.
4. To define the kinds of turkey hunt experience desired by different types of hunters relative to time, area, hunting pressure, and flock size and distribution.

MNGT IMP This study will result in the introduction of wildlife species into suitable habitats to restore populations.

PRNC INV Jerry Weinrich

TELE 517/422-5191.

015 Moose

1. To evaluate factors contributing to the success or failure of moose reintroduction in Upper Peninsula.

MNGT IMP Will result in the introduction of wildlife species into suitable habitats to restore populations.

PRNC INV John J. Ozaga

TELE 906/452-6226.

016 Whitetail Deer

1. To maintain herds of penned deer to use in answering management questions about physiology, nutrition, behavior, reproduction, etc.

MNGT IMP This project will result in the protection, development or improvement of wildlife habitat to sustain or enhance populations.

PRNC INV Dick D. Earle

TELE 517/422-5191.

017 Whitetail Deer

1. To determine the maximum number of deer produced and the cost of producing them under different levels of gross habitat manipulation.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV R.J. Morgan

TELE 517/442-5191.

Minnesota

001 Hawks/Eagles/Falcons

1. To operate and maintain two peregrine falcon reintroduction release sites in Minnesota.
2. To hack 15 to 30 falcons in 1985.

PRNC INV Lee Pfanmuller

TELE 612/297-2276.

Mississippi

001 All Wildlife

1. To determine the cause of wildlife disease outbreaks and advise on control measures.

MNGT IMP This study will provide information which will be used to overcome, or moderate biological limiting factors that affect the growth or well-being of wildlife populations.

PRNC INV Edsel Cliburn.

002 Whitetail Deer

1. To determine the most reliable technique for aging whitetailed deer in Mississippi.

MNGT IMP This study will provide information which can be used to assess management practices for whitetailed deer to determine their effectiveness toward accomplishment of management goals.

PRNC INV Harry A. Jacobson.

003 Game Species

1. To determine annual game harvest and sportsmen views.

MNGT IMP This study will provide information on public use and demand for wildlife and will aid in the determination of programs or actions to meet the demand.

PRNC INV David E. Steffen and William J. Hamrick.

004 Mourning Dove

1. To determine changes in dove breeding populations within Mississippi.

MNGT IMP This study will provide information on the abundance of mourning dove populations to be used collectively with other states to develop population management practices.

PRNC INV Ed Hackett

TELE 601/961-5338.

005 Waterfowl

1. To determine migration dates, patterns and population peaks and fluctuations of waterfowl passing through and wintering in Mississippi.
2. To band a preseason sample of Mississippi wood ducks.
3. To band postseason samples of mallards, ring-necked ducks and Canada geese wintering in Mississippi.

MNGT IMP This study will provide information on the abundance, condition, or factors that affect waterfowl populations so as to develop population management practices.

PRNC INV Richard Wells.

Mississippi

006 Bobcat

1. Determine reproductive characteristics of wild bobcats in Mississippi using known age related data.

MNGT IMP This study will provide information on the abundance of bobcat population which is needed to develop population management practices.

PRNC INV Ernest A. Gluesing and Harry A. Jacobson.

007 Turkey

1. Determine size and structure of the wild turkey population on a selected part of Tallahala WMA.
2. Study reproductive efforts (dispersal, nesting, brood rearing) of turkey hens.
3. Obtain information of turkey hunter harvest rates and efforts.
4. Determine size of hen-juvenile turkey population in the fall and relate this to hen-poult counts.

MNGT IMP This study will provide information on the abundance, condition, and limiting factors that affect wild turkey populations so as to develop population and habitat management practices.

PRNC INV George Hurst.

008 Furbearers

1. Determine information on the biology, management, and the effects of exploitation on furbearers in coastal marshes.
2. Evaluate the reliability of currently used trapper questionaires, and develop species profiles, trapper profiles, and population trends.
3. Examine the abundance of large alligators in Mississippi coastal marshes, food habits in specimens from adjacent areas in Louisiana, and to determine their potential impact in furbearers.

MNGT IMP This study will provide information on the abundance and limiting factors that affect furbearer populations so as to develop population management practices.

PRNC INV Dr. James Wolfe.

009 Waterfowl

1. To determine the attitudes of Mississippi delta farmland owners toward waterfowl management on private lands.

MNGT IMP This study will provide information on public use and demand for waterfowl which will aid in the determination of programs or actions to meet this demand.

PRNC INV Ed Hackett

TELE 601-961-5339.

010 Whitetail Deer

Mississippi

1. To determine forage production quality and use of agricultural plantings on the Marion County Wildlife Management Area for white tailed deer.

PRNC INV Harry A. Jacobson.

011 Waterfowl

1. To determine waterfowl utilization of catfish ponds relative to habitat characteristics in Mississippi's Delta Region.

Missouri

001 Endangered Birds

1. To identify potential nesting habitat/range in Missouri.
2. To determine 1985 & 1986 Missouri breeding range.
3. To monitor 1985 & 1986 breeding populations.
4. To describe breeding and foraging habitat.
5. To determine breeding success at selected terneries in 1985 & 1986.

PRNC INV K.C. Sadler and J.W. Smith

TELE 314/449-3761.

002 Grouse

1. To establish new populations of ruffed grouse within the original range in MO where suitable habitat still exists.
2. To assist in planning and implementing coordinated timber/wildlife management plans on state forests and wildlife management areas.

MNGT IMP This study will result in the introduction of wildlife species into suitable habitats to restore populations.

PRNC INV Dave Hamilton

TELE 314/449-3761.

003 Furbearers

1. To determine annual mean pelt value.
2. Determine number of furbearers harvested and sold as pelts.
3. To determine annual mean pelt values (by size and grade) and total commercial value for various species by county, region and statewide.
4. To determine the number of trappers and racoon and coyote hunters active each year as indicators of harvest pressure.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV David A. Hamilton

TELE 314/449-3761.

004 Grouse

1. To census prairie chicken booming grounds on or within .8 km of boundaries of public prairies and management areas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Don Christisen

Missouri

005 Quail

1. To analyze summer brood observations for annual bobwhite production index.
2. To determine relationships between summer and early fall populations and hunting success.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Richard Cannon

TELE 314/449-3761.

006 Whitetail Deer

1. To determine deer population trends, harvest, and hunting pressure to determine management strategies.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Norb Giessman

TELE 314/449-3761.

007 Turkey

1. Assemble data relating to reproduction phenology, immature adult hen ratios and poult survival.
2. To provide data relating to hunter numbers per county, hunting success rate, and harvest.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV John Lewis

TELE 314/449-3761.

008 Bats

1. To monitor status of important gray bat summer caves in Missouri.
2. To recommend programs to insure continued survival of endangered bats in Missouri.
3. To determine food habits and foraging behavior of gray bats in MO.
4. To determine the summer distribution and status of the Indiana bat in MO.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV Richard Clawson

TELE 314/449-3761.

Missouri

009 Bats

1. To monitor status of hibernating Indiana and gray bats in Missouri.
2. To recommend programs to insure continued survival of endangered bats in Missouri.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV Richard Clawson

TELE 314/449-3761.

010 Small Game

1. To estimate annual small game harvests, hunting pressure and success via post-season mail survey.

MNGT IMP This study will provide information on public use and for wildlife and will aid in the determination of program or actions to meet the demand.

PRNC INV Gail Olson

TELE 314/449-3761.

011 Pheasant

1. To monitor the annual abundance of the ring-necked pheasant in Missouri.
2. To determine Korean pheasant harvest information including: number taken, age composition of harvest, flush rate, hunter hours per shot, and hunter hours per bagged bird.
3. To determine hunting information including: number of pheasant hunters, harvest by county, birds bagged with dogs, and mean number in hunting party.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Diana L. Hallett

TELE 314/449-3761.

012 Vegetation

1. To conduct the mast survey annually, compare results with previous years findings and evaluate for wildlife sufficiency.

MNGT IMP This project will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV Donald Christisen

TELE 314/449-3761.

O13 Mourning Dove

1. To determine statewide abundance of doves during the early stages of the productive season.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Diana L. Hallett

TELE 314/449-3761.

O14 Cottontail

1. To annually determine and report the relative abundance of the statewide cottontail population.
2. To determine and report significant changes in harvest success and hunter attitudes.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Donald Christisen

TELE 314/449-3761.

O15 Canada Geese

1. To determine nesting populations, productivity, and mortality of giant Canada goose flocks.
2. To develop guidelines for potential site establishment of new resident goose flocks and the success of attempts to establish new resident flocks.

MNGT IMP This study will result in the introduction of wildlife species into suitable habitats to restore populations.

PRNC INV David Graber and Dale D. Humberg

TELE 314/449-3761.

O16 Predators

1. To determine the relative abundance of upland furbearers using the furbearer sign station survey.
2. To evaluate resultant data with respect to visitations, annual trends, statistical features, and general applicability.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV David A. Hamilton

TELE 314/449-3761.

Missouri

017 Canada Geese

1. To monitor fall and winter migration phenology and population levels.
2. To monitor area harvests.
3. To compare biological data collected annually at check stations concerning age, sex, and structural measurements.
4. To formulate from Eastern Prairie Population Model, incorporating reproductive, population level, and harvest data, recommendations for annual EPP harvest.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Dale Humburg and David A. Graber

TELE 314/449-3761.

018 Turkey

1. To determine the causes and rates of harvest and non-harvested related mortality on the North Missouri wild turkey resource.
2. To assess the impact of fall harvest mortality on spring breeding densities and long-term population trends.
3. To develop harvest strategies and a wild turkey population model that are the most appropriate for the turkey resource in North Missouri.
4. To develop a turkey population model and test its validity.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV John Lewis and Eric Kurzejeski

TELE 314/449-3761.

019 Grouse

1. To determine the degree of contact and intermingling between scattered populations with varying distances between respective breeding areas.

MNGT IMP This study will result in the introduction of wildlife species into suitable habitats to restore populations.

PRNC INV R.W. Cannon

TELE 614/449-3761.

020 Canada Geese

1. To evaluate the distribution and habitat use by geese on Swan Lake NWR and surrounding public and private lands.
2. To evaluate the relationships amoung body condition, status, habitat distribution use, feeding ecology, internal organs, molt, and weather conditions.

3. To evaluate seasonal changes in daily energy expenditures (DEE) of ac- tivities and the influence of weather and hunting disturbances of DEE.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV D.D. Humberg and David A. Graber

TELE 614/449-3761.

021 Furbearers

1. To Determine numbers of upland furbearers sighted per 1000 hours of hunting by cooperating archery hunters.
2. To evaluate resultant information with respect to its potential as a population trend indicator for upland furbearers.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV David A. Hamilton

TELE 314/449-3761.

022 Nongame Birds

1. Determine population responses of non-game birds to timber wildlife management practices in a central Missouri hardwood forest.

MNGT IMP This study will be used to assess management practices to determine their effectiveness toward accomplishment of managemen/ goals.

PRNC INV Richard Clawson and John W. Smith

TELE 314/449-3761.

023 Tree Squirrel

1. To obtain squirrel harvest data from hunters.
2. To determine age and sex specific survival and reproductive rates under different hunting strategies and pressures; including no hunting.
3. To develop computer model

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Don Christisen

TELE 314/449-3761.

Missouri

024 Upland Birds, Upland Game, Habitats

1. To monitor short-term changes in the terrestrial plant community of oak-hickory forest free of cultural activities and a similar forest under harvest.
2. To determine the adequacy of timber and wildlife stand data collected for habitat evaluation models PATREC and DYNAST.
3. To evaluate the accuracy of simulation model DYNAST in predicting changes in the oak-hickory forest community.
4. To monitor short-term changes in terrestrial wildlife community re¦ species composition and population densities of an oak-hickory forest which is free of cultural activities and a similar forest under an sctive harvest and management program.
5. To evaluate the accuracy of current Pattern Recognition Models in pre-dicting wildlife population densities resulting from differentmanage-ment strategies and refine or develop improved Pattern Recognition and DYNAST models which accurately predict wildlife population densities.
6. To provide a habitat data base for coordinated wildlife studies, both in the short-term and as a baseline for long-term studies.

MNGT IMP This project will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV D. Hamilton

TELE 614/449-3761.

025 Upland Game

1. To describe structural and floristic patterns occurring during establishment.
2. To determine the amount and type of food and cover produced by native grass-forb-legume plantings in response to 3 different hay/burn management strategies.
3. To determine floristic composition and vegatative structure within selected plantings on upland wildlife areas.
4. To, within a planting, determine the relative degree of use by selected upland wildlife species.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV Richard Cannon

TELE 314/449-3761.

026 Waterfowl, Herons/Bitterns

1. Investigate avian predation from waterfowl and shorebinder.
2. Correlate emergence of imago and subimago aquatic insects with avian usage.
3. Collect wetland invertebrates and analyze for water, ash, lipid, and nitrogen; presence and quantity of amino acids; and caloric content.
4. To quantify temporal avian flocking within Ted Shanks wetland complex during natural and artificial drawdown.
5. To determine response of resident and migrant birds to management of seasonally-flooded man-made impoundments within Ted Shanks wetland complex.
6. To determine avian response to management of bottomland hardwoods as greentree reservoirs in the Nose Slough Unit of the Ted Shanks WMA.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Dale Humburg and David A. Graber and J.W. Smith

TELE 314/449-3761.

027 Whitetail Deer

1. Determine deer usage of a seasonal refuge in response to deer hunter activity on a WMA in Northern Missouri.
2. Effects of a seasonal refuge on the temporal and spatial distribution of white-tailed deer on an intensely hunted wildlife management area in North Missouri.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Norb Giessman

TELE 314/449-3761.

028 Swans

1. Determine the efficacy of trumpeter swan reintroductions as a technique for reestablishing migratory behavior and recolonization of historical winter range by monitoring post-release movements and documenting the occurrence of experimental birds observed wintering in Missouri.
2. Investigate the habitat use and food habits of trumpeter swans reintroduced to Missouri.

MNGT IMP This study will result in the introduction of wildlife species into suitable habitats to restore populations.

PRNC INV Kenneth Sadler

TELE 314/449-3761.

029 All Birds

1. To identify measurable habitat parameters correlated with distribution and abundance of key bird species.
2. To identify key habitat features to be measured in an inventory system.
3. To identify habitat parameters to be manipulated and evaluated in the testing of wildlife management practices.
4. To validate or refine existing PATREC models by testing the underlying assumptions of habitat associations on which they are based.
5. To construct and evaluate PATREC models for other key wildlife species.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV R.L. Clawson and Steven L. Sheriff

TELE 614/449-3761.

Missouri

030 Puddle Ducks

1. To determine establishment, growth, and survival characteristics of pin oak and other tree seedlings following cutting treatments to 3 levels of basal area at 2 elevations in areas of managed and unmanaged flooding.
2. To determine growth and survival characteristics of advanced pin oak regeneration following cutting treatments to 3 levels of basal area at 2 elevations in areas of managed and unmanaged cutting.
3. To determine the response of herbaceous plants·(composition and density) following cutting treatments to 3 levels of basal area at 2 elevations in areas of managed and unmanaged flooding.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV D. Hamilton

TELE 614/449-3761.

031 Canada Geese

1. To determine if specific and discrete population segments exist in western Mississippi Flyway populations.
2. To determine if survival ratis of these geese are lower that those of geese that winter in northern Missouri, Iowa, and Minnesota.
3. To determine if survival ratis are related to harvest ratis and hunting on wintering areas and migration routes.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV D.D. Humburg and David A. Graber

TELE 614/449-3761.

032 Quail

1. To determine the effect of German millet (setaria italica) on insect and seed production in annual food plots in a cool-season pasture, forest soil enviornment.
2. To determine amounts and kinds of seeds available as a mid-winter emer- gency food supply within annual food plots in a cool-season pasture, forest soil enviornment.
3. To determine the production of insects and seeds in spring plowed/disced plots in cool-season pasture on forest soils as an alternative to planting annual food plots.
4. To determine the amounts and kinds of seeds available as a mid-winter emergency food supply within spring plowed/disced plots in cool-season pasture on forest soils as an alternative to planting annual foodplots.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV R.W. Cannon and Donald M. Christisen

TELE 614/449-3761.

033 Nongame Birds, Waterfowl

1. To determine population responses of breeding and wintering non-game birds to timber management in a bottomland hardwood forest managed as a green tree reservoir.
2. To determine the response of migrant and wintering waterfowl to timber management in a bottomland hardwood forest managed as a green tree reservoir.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV Kenneth C. Sadler and John W. Smith

TELE 614/449-3761.

034 Quail

1. To document pre-harvest population densities in a 640-acre management unit on each of 3 wildlife management areas.
2. To document land cover patterns within each of the 640-acre management units.
3. To refine and evaluate the veracity of the habitat condition/species density relationships used in the PATREC model and the Habitat Evaluation Procedure for bobwhite in Missouri.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV John B. Lewis and Richard W. Cannon

TELE 614/449-3761.

035 Perching Birds

1. To determine a number of characteristics of ovenbirds, Kentucky warblers, and worm-eating warblers, including habitat selected, densities, territory size and location, nest success, success of males at attracting mates, and adult and juvenile site fidelity and return rate in islands vs. manland forests in central Missouri.
2. To relate these phenomena to management designed to preserve these species, especially in areas of fragmented habitat.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Richard L. Clawson

TELE 614/449-3761.

036 Grouse

1. To determine seasonal habitat use, with emphasis on drumming sites, brood rearing areas, winter habitat, and roost sites.
2. To determine age ratio, survivorship, and drumming status of male ruffed grouse, and estimate annual production on the Ashland Wildlife Area.
3. To determine fall food habits from hunter crop returns.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

Missouri

PRNC INV David Hamilton

TELE 614/449-3761.

037 Pheasant

1. To determine ring-necked hen pheasant habitat use, movements, and home range in spring on an area in Scotland County with pheasant indices greater than 10 cocks/sq. mi.
2. To determine the vegetative structure of nesting and brood-rearing cover used by pheasants on an area in Scotland County with pheasant indices greater the 10 cocks/sq. mi.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV Diana L. Hallett and Liz Cook

TELE 614/449-3761.

038 All Wildlife

1. To prepare comprehensive species management plans for the white-tailed deer, giant Canada geese, ruffed grouse, river otter, gray bat, Indiana bat, pheasant, turkey.

MNGT IMP This study will be used to overcome or moderate biological limiting factors that affect the growth or well-being of wildlife or endangered species.

PRNC INV Richard Cannon, et al

TELE 614/449-3761.

039 Game Species

1. To determine the number of resident paid hunting license holders in Missouri during 1985 as required by the Secretary of Interior's Rules and Regulations Section 80.10.

MNGT IMP Provide information on public use and demand for wildlife and will aid in the determination of programs or actions to meet the demand

PRNC INV Steven L. Sheriff

TELE 614/449-3761.

040 Grouse

1. To determine movements, home range, and habitats used by hens during pre-laying, nesting, brood-rearing, and winter periods.
2. To monitor fall dispersal of prairie chickens in an area of scattered remnant tracts of native prairie.
3. To determine egg fertility rates, clutch sizes, and nest success.

4. To document the causes of mortality of radio-tagged hens.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Richard W. Cannon

TELE 614/449-3761.

Montana

001 Wild Sheep, Wild Sheep

1. To determine information on habitat use, movement patterns, critical use areas, and populations parameters for deer, elk, and bighorn sheep.
2. To determine the impact of oil and gas exploration and development on deer, elk, and bighorn sheep.

MNGT IMP Will provide information to the Department and other land management agencies for predicting the impact of oil and gas development projects on elk, deer and bighorn sheep. Recommendations and stipulations can then be made to alleviate impacts.

PRNC INV Dan Hook

TELE 406/562-3881.

002 Ferret

1. To locate a population of black-footed ferrets in Montana

MNGT IMP Will help Montana and the U.S. Fish and Wildlife Service meet the goals established in the Black-footed Ferret Recovery Plan.

PRNC INV John Cada

TELE 406/994-3285.

003 Endangered Birds

1. To reestablish a nesting population of American peregrine falcons in Montana.

MNGT IMP Will help Montana and the U.S. Fish and Wildlife Service meet goals established in the Rocky Mountain/American Peregrine Falcon Recovery Plan.

PRNC INV John Cada

TELE 406/994-3285

004 Wolf

1. To obtain information of population status, habitat use, food habits, dispersal, mortality factors and habitat availability for wolves in northwestern Montana and to develop management actions necessary for recovery, maintenance, and containment of a viable wolf population in concert with an approved Recovery Plan.
2. To coordinate department endangered species program between various state departments and other federal agencies and private organizations.

MNGT IMP Will help Montana and the U.S. Fish and Wildlife Servie meet goals established in the Northern Rocky Mountain Wolf Recovery Plan.

PRNC INV Gleen Erickson

TELE 406/444-3186.

Montana

005 Wolf

1. Complete literature review, develop range map and habitat maps, determine population status.

MNGT IMP Information will be used for status report that will assist Montana and U.S. Fish and Wildlife Service in determining if the Montana population should be listed as endangered or threatened.

PRNC INV Arnold Dood

TELE 406/444-2535.

006 Furbearers

1. To determine seasonal ranges, habitat utilization, and movements of bobcats in relation to existing habitat characteristics.
2. To document bobcat population age and sex structure and reproductive biology.
3. To determine seasonal food habits in relation to existing prey composition.
4. To evaluate the development of a practical index to relative bobcat abundance.
5. Determine statewide population status, distribution, and habitat use of bobcat, Canada lynx, wolverine, marten, fishes, and otter.

MNGT IMP Wildlife managers will use the information to establish annual furbearer harvest level objectives, trapping seasons, and regulations.

PRNC INV Howard Hash

TELE 406/721-5808.

007 Whitetail Deer

1. To determine habitat usage, population parameters, movements, food habits and behavioral preferences.
2. To determine the influences/effects of specific limiting factors.
3. To develop and test management methods/guidelines.

MNGT IMP Wildlife managers are using this information to (1) set allowable harvest rates by hunting unit, and (2) change unit boundaries to better fit the behavior of deer herds.

PRNC INV Dr. Richard Mackie

TELE 406/994-2270.

008 Mule Deer

1. To determine habitat usage, population parameters, movements, food habits, and behavioral preferences.
2. To determine the influence/effects of specific limiting factors.
3. To develope and test management methods/guidelines.

MNGT IMP Wildlife managers are using this information to (1) set allowable harvest rates by hunting unit, and (2) change unit boundaries to better fit the behavior of deer herds.

PRNC INV Dr. Richard Mackie

Montana

TELE 406/994-2270.

009 Elk

1. Determine the effects of alternate hunting strategies and various harvest rates on elk population dynamics and habitat use due to the steady increase of hunting pressure and loss of habitat security.
2. Test the hypothesis that when mature bulls (2 1/2+ years) make up less then 5% of an elk population during the breeding season, the net re- productive success will be less compared to when the population has greater than 5% mature bulls.

MNGT IMP Wildlife managers will use the information to set regulations to obtain the desired mature/immature bull ratio, cow/bull ratio, and cow/calf ratio.

PRNC INV Dr. John Weigand

TELE 406/994-3285.

010 Cervids, Pronghorn, Upland Birds, Domestic Cattle

1. To provide improved knowledge and understanding of wildlife-livestock relationships, and to develop improved criteria and guidelines for management of wildlife, with consideration of wildlife requirements in livestock grazing management programs in Montana.

MNGT IMP Will provide information to wildlife managers for managing livestock to benefit big game winter ranges owned by the Department and to influence management of winter ranges on private land.

PRNC INV Dr. John Weigand

TELE 406/994-3285.

011 Furbearers

1. To continue monitoring the annual statewide, regional, and trapping district levels of harvests of 15 furbearing species in Montana, to determine the distribution of harvests of those species, and to monitor the annual commercial values of pelts.

MNGT IMP Wildlife managers will use the information to monitor the state's annual harvest to maintain population levels at established objectives.

PRNC INV Howard Hash.

012 All Wildlife

1. To routinely provide laboratory and other specialized services to wildlife biologists and administrators, and to other department and state and federal agency personnel as needed.
2. To determine the categories, extent, and composition of man-caused deaths of grizzly bears in Montana.
3. To determine the numbers, composition, and location of mountain lions harvested by hunters in Montana.

MNGT IMP Provides mortality, disease and parasite, age and sex, and reproductive data to wildlife managers for use

PRNC INV Dan Palmisciano

TELE 406/994-3285.

013 Nongame Wildlife

1. To identify species composition and primary habitat association of nongame bird and mammal communities on Department-owned lands.
2. To develop ongoing trend data relating to the status of diurnal raptors.
3. Promote public participation in placement and maintenance of bluebird nest boxes. Facilitate continued recovery of western bluebirds.

MNGT IMP The survey work will provide information for managing the state's nongame program. Western bluebird populations will increase

PRNC INV Dennis Flath

TELE 406/994-3285.

014 Game Species

1. To obtain quantitative and qualitative data for the management of 10 species of big game (white-tailed deer, mule deer, elk, moose, bighorn sheep, mountain goats, grizzly bears, black bears, mountain lions, and antelope) from surveys of populations, habitat, and harvest that are designed to determine distribution, density, population composition and trends, productivity, mortality, movements, migration routes, habitat use and condition, and hunter harvest and success.
2. To obtain trend information on breeding populations, annual procuction, harvest, distribution, and habitat condition for blue grouse, ruffed grouse, Franklin's grouse, sage grouse, sharp-tailed grouse, pheasants, Hungarian partridge, chubar partridge, and turkeys.

MNGT IMP Information obtained is used by wildlife managers as the basis for managing the state's game species. Annual harvest regulations are developed using the information. Managers strive to provide maximum hunter recreation and sustainable breeding populations at optimum levels compatible with the habitat and landowner tolerance.

PRNC INV Joe Egan

TELE 406/444-2535.

015 Moose

1. To determine the relationship between snow depth, snow crust development and moose winter activity.
2. To describe the extent and characteristics of moose calving habitat.
3. To describe the impact of hunting pressure on moose activity.
4. To refine habitat availability and utilization values and mapping through habitat sampling.

MNGT IMP Information will be used to refine timber/moose management guidelines, especially for the winter period.

PRNC INV Brent Costain.

Montana

O16 Black Bear

1. To trap, mark and monitor black bears to determine the movements, habitat use, food sources, and age and sex structure of black bears in Sweet Grass and Stillwater Counties.

MNGT IMP State wildlife managers and U.S. Forest Service will use the data to develop guidelines for minimizing the adverse impacts of logging by saving portions of the habitat necessary to maintain black bear population. State wildlife managers will use population demorgraphic data to set hunting seasons that will maintain a viable core of breeding age females.

PRNC INV Charles D. Eustace

TELE 406/245-2214.

O17 Black Bear

1. To trap, mark, and monitor black bears to determine the movements, habitat use, food sources, and age and sex structure of black bears in Sweet Grass and Stillwater Counties.

MNGT IMP State wildlife managers and U.S. Forest Service will use the data to develop guidelines for minimizing the adverse impacts of logging by saving portions of the habitat necessary to maintain black bear populations. State wildlife managers will use population demographic data to set hunting seasons that will maintain a viable core of breeding age females.

PRNC INV Charles D. Eustace

TELE 406/245-2214.

O18 Black Bear

1. To assess black bear population dynamics in the Yaak area and to determine habitat use.

MNGT IMP Information will be used to establish harvest rates and make land management recommendations.

PRNC INV Jim Cross

TELE 406-444-3186.

Nebraska

001 Endangered Birds

1. Monitor migrating whooping cranes and identify stopover sites.
2. Determine characteristics of stopover sites used by whooping cranes.
3. Develop management plans for critical stopover areas used by whooping cranes during migration.

MNGT IMP Will help Nebraska and the U.S. Fish and Wildlife Service meet goals established in the Whooping Crane Recovery Plan.

PRNC INV Ross Lock

TELE 402/464-0641.

002 Endangered Birds

1. Monitor the breeding population of interior least terns in four river systems.
2. Determine factors limiting reproductive success and restricting habitat suitability.
3. Delineate breeding habitat necessary to achieve population levels desired.
4. Develop and implement step-down recovery plans for four river systems.

MNGT IMP Will help Nebraska and the U.S. Fish and Wildlife Service meet recovery goals that are being established for the interior least tern.

PRNC INV Ross Lock

TELE 402/464-0641.

Nevada

001 Hawks/Eagles/Falcons

1. Reintroduce the Peregrine falcon as a breeding population into Nevada.

PRNC INV Gary Herron

TELE 702/784-4039.

002 Hawks/Eagles/Falcons

1. Restore Nevada's Pacific Coast population to self-sustaining status.
2. Down list and delist the peregrine falcon in Nevada.

MNGT IMP Survey and identify potential reintroduction sites. Identify hack box sites and establish hack box. Provide food during hacking.

PRNC INV

TELE 702/789-0500.

003 Cottontail

1. To determine status, trends and utilization of Nevada's cottontail and white-tailed rabbit populations.

MNGT IMP Provide information for the purpose of developing appropriate strategies for management of the cottontail, pygmy and white-tailed jack rabbits in Nevada.

PRNC INV San Stiver

TELE 702/789-0534.

004 Pheasant

1. To determine status, trends and utilization of Nevada's pheasant populations.

MNGT IMP Provide information for the purpose of developing appropriate strategies for management of pheasants in Nevada.

PRNC INV San Stiver

TELE 702/789-0534.

005 Mule Deer

1. To determine status, trends and utilization of Nevada's mule deer populations.

MNGT IMP Provide information for the purpose of developing appropriate strategies for management of mule deer in Nevada.

PRNC INV Mike Hess

TELE 702/789-0534.

006 Wild Sheep

1. To determine status, trends and utilization of Nevada's bighorn sheep populations.

MNGT IMP Provide information for the purpose of developing appropriate strategies for management of the bighorn sheep in Nevada.

PRNC INV Mike Hess

TELE 702/789-0534.

007 Pronghorn

1. To determine status, trends and utilization of Nevada's antelope populations.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing antelope in Nevada.

PRNC INV Mike Hess

TELE 702/789-0534.

008 Bobcat, Fox

1. To determine status, trends and utilization of Nevada's bobcat and kit fox populations.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing furbearers in Nevada.

PRNC INV San Stiver

TELE 702/789-0534.

009 Mourning Dove

1. To determine status, trends and utilization of Nevada's mourning dove populations.

MNGT IMP Provide information for the purpose of developing appropriate strategies for management of the mourning dove in Nevada.

PRNC INV Terry Retterer

TELE 702/789-0536.

010 Waterfowl

Nevada

1. To determine status, trends and utilization of Nevada's duck and geese populations.

MNGT IMP Provide information on breeding and wintering populations of waterfowl in Nevada for the purpose of developing management strategies for waterfowl populations occuring in the Pacific Flyway.

PRNC INV Terry Retterer

TELE 702/789-0536.

011 Mountain Goat

1. To determine status, trends and utilization of Nevada's mountain goat populations.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing mountain goat in Nevada.

PRNC INV Mike Hess

TELE 702/789-0534.

012 Mountain Lion

1. To determine status, trends and utilization of Nevada's mountain lion populations.

MNGT IMP Provide information for the purpose of developing appropriate strategies for the management of mountain lion in Nevada.

PRNC INV Mike Hess

TELE 702/789-0534.

013 Elk

1. To determine status, trends and utilization of Nevada's elk populations.

MNGT IMP Provide information for the purpose of developing appropriate strategies for management of the elk in Nevada.

PRNC INV Mike Hess

TELE 702/789-0534.

014 Partridge

1. To determine status, trends and utilization of Nevada's chuker and Hungarian partridge populations.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing chucker and Hungarian partridge populations in Nevada.

TELE 702/789-0534.

O15 Upland Birds

1. To establish upland game species in historic habitat in Nevada, species include grouse, quail, pheasant and turkey.

MNGT IMP Provide new viable populations of ruffled grouse, sharp-tailed grouse, mountain quail, scaled quail, pheasant and turkey within suitable habitats occuring in Nevada.

PRNC INV San Stiver

TELE 702/789-0534.

O16 Big Game

1. To trap and transplant big game to historic habitat in Nevada.
2. To monitor transplanted big game populations, species include wild sheep, mountain goats, elk and antelope.

MNGT IMP Provide viable new populationss of Rocky Mountain, desert and California bighorn sheep, Rocky Mountain elk, mountain goats and antelope within suitable habitats occuring in Nevada.

PRNC INV George Tsukamoto

TELE 702/789-0534.

O17 Furbearers

1. To develop a furbearer management plan.

MNGT IMP Provide strategies for managing furbearer in Nevada.

PRNC INV San Stiver

TELE 702/789-0534.

O18 Quail

1. To determine status, trends and utilization of Nevada's Valley quail and Gambel's quail populations.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing quail populations in Nevada.

PRNC INV San Stiver

TELE 702/789-0534.

Nevada

019 Grouse

1. To determine status, trends and utilization of Nevada's sage grouse & Mt. grouse populations.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing sage grouse, blue grouse and ruffled grouse populations in Nevada.

PRNC INV San Stiver

TELE 702/789-0534.

020 Fox

1. To determine habitat preference and den characteristics.
2. To determine factors that limit distribution of Kit fox.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing kit fox in Nevada.

PRNC INV San Stiver

TELE 702/789-0534.

021 Otter

1. To determine distribution and density of River Otter in Nevada.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing river otter in Nevada.

PRNC INV San Stiver

TELE 702/789-0534.

022 Mule Deer

1. To define selected mule deer herd boundaries.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing the different deer herds in Nevada.

PRNC INV Mike Hess

TELE 702/789-0534.

023 Grouse

[illegible] and trends of sage grouse in selected areas of Nevada.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing sage grouse in Nevada.

PRNC INV San Stiver

TELE 702/789-0534.

024 Mule Deer

1. To develop a mule deer management plan.

MNGT IMP Provide information for the purpose of developing plans for the management of mule deer population in Nevada.

PRNC INV Mike Hess

TELE 702/789-0534.

025 Grouse

1. To develop a Blue Gouse Management Plan for immediate and long-range planning.

MNGT IMP Provide long-term strategies for managing blue grouse populations in Nevada.

PRNC INV Stan Stiver

TELE 702/789-0534.

026 Mule Deer

1. To redefine selected Mule Deer herd boundaries of the State.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing Mule Deer in Nevada.

PRNC INV Mike Hess

TELE 702/789-0534.

027 Pheasant

1. To determine the limiting factors that affect ringnecked pheasant population in Western Nevada.
2. To develop a plan and strategy to increase the pheasant populations in Western Nevada.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing ringnecked pheasant populations, with emphasis on augmentation in Nevada.

PRNC INV Stan Stiver

TELE 702/789-0534.

Nevada

028 Mule Deer

1. To develop a Mule Deer Management Plan for immediate and long-range planning.

MNGT IMP Provide long-term management strategies for managing Mule Deer in Nevada.

PRNC INV Mike Hess

TELE 702/784-0534.

029 Waterfowl

1. To determine lead poisoning ingestion rates for species of waterfowl in high use harvest areas.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing waterfowl in Nevada.

PRNC INV Terry Retterer

TELE 702/789-0536.

030 Partridge

1. To determine the size and distribution of Chukar Partridge populations dependent upon artificial watering devices.
2. To develop a cost-benefit relationship between these Chukar populations, hunter utilization, and the cost of the artificial watering devices.
3. To determine what variables enhance Chukar use and population density on water devices.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing Chukar Partridge in Nevada.

PRNC INV Stan Stiver

TELE 702/789-0534.

031 Waterfowl, Upland Game

1. To develop management area plan for Overton and Mason Valley WMA.

MNGT IMP Provide information for developing long-term resource plans for management of Kirch, Mason Valley, and Overton Wildlife Areas in Nevada.

PRNC INV Terry Retterer

TELE 702/789-0536.

032 Hawks/Eagles/Falcons

1. To determine raptor distribution status and trends.

MNGT IMP Provide information for the purpose of establishing status and developing strategies for managing raptor species in Nevada.

PRNC INV Gary Herron

TELE 702/784-4788.

033 Nongame Birds

1. To determine distribution, status and trends of water and shorebirds in Nevada.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing non-game water and shorebirds in Nevada.

PRNC INV Gary Herron

TELE 702/784-4788.

034 Nongame Birds

1. To determine distribution, status and trends of passerine birds in Nevada.

MNGT IMP Provide information for the purpose of establishing status and developing strategies for managing passerine birds in Nevada.

PRNC INV Gary Herron

TELE 702/784-4788.

035 Cranes

1. To determine distribution, status and trends of greater sandhill crane in Nevada.

MNGT IMP Provide information for the purpose of establishing status and developing strategies for managing the Greater Sandhill Crane while in Nevada.

PRNC INV Gary Herron

TELE 702/784-4788.

036 Hawks/Eagles/Falcons

1. To determine distribution status and trends of threatened and endangered nongame wildlife in Nevada.

MNGT IMP Provide information for establishing the status of the bald eagle, peregrine falcon, and other species considered candidates for listing in Nevada.

PRNC INV Gary Herron

TELE 702/784-4788.

037 Nongame Wildlife

1. To describe and map unique and important nongame habitats (st. II-1).
2. To evaluate and make recommendations on effects of land use on nongame wildlife habitat (st. III-1).

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing nongame species in Nevada by Department of Wildlife and land agencies.

PRNC INV Gary Herron

TELE 702/784-4788.

038 Nongame Wildlife

1. To determine distribution, status and trends of nongame mammals in Nevada.

MNGT IMP Provide information for the purpose of establishing status and developing strategies for managing nongame mammals in Nevada.

PRNC INV Gary Herron

TELE 702/784-4788.

New Hampshire

001 Hawks/Eagles/Falcons

1. To monitor bald eagle activity in New Hampshire.
2. To locate and protect any nesting pairs.
3. To identify, document and protect bald eagle wintering habitat.

MNGT IMP To assist in recovery of Bald Eagle.

PRNC INV Carol F. Smith

TELE 603/224-9909.

002 Hawks/Eagles/Falcons

1. To evaluate the suitability of available cliff sites as nesting habitat and to monitor these sites for activity.

MNGT IMP To assist in recovery of Peregrine Falcons.

PRNC INV Carol F. Smith

TELE 603/224-9909.

003 Whitetail Deer

1. To evaluate results of habitat management practices.
2. To compare hunter use and deer harvests with past deer habitat management practices.

MNGT IMP This project will provide information on the abundance, condition or factors which affect white tailed deer populations.

PRNC INV Karl Strong

TELE 603/271-2461.

004 Whitetail Deer

1. To determine the losses of all causes of deer populations.

MNGT IMP This project will provide information on the abundance, condition or factors that affect white-tailed deer populations so as to develop population and habitat management strategies.

PRNC INV Joe Wiley

TELE 603/241-2461.

005 Whitetail Deer

1. To locate, map and classify deer wintering areas in southern New Hampshire.
2. To operate biological deer checking station in southern New Hampshire.

New Hampshire

MNGT IMP This project will result in the protection, development or improvement of deer habitat to sustain or evidence populations.

PRNC INV Joe Wiley

TELE 603/271-2461.

006 Whitetail Deer

1. To determine the extent and causes of deer winter losses.
2. To determine physical condition and reproductive rates of accidentally killed deer.

MNGT IMP This project will be used to overcome or moderate biological limiting factors that affect the growth or well-being of white-tailed deer population.

PRNC INV Joe Wiley

TELE 603/271-2461.

007 Moose

1. To determine if a moose season is biologically feasible.

MNGT IMP This project will provide information on abundance, conditions, or factors that affect moose populations so as to develop population and habitat management strategies.

PRNC INV Kristine Kleine

TELE 603/271-2461.

008 Whitetail Deer

1. To determine antlerless deer season quotas.

MNGT IMP This project will be used to overcome or moderate biological limiting factors that affect growth or well-being of wildlife populations.

PRNC INV Joe Wiley

TELE 603/271-2461.

009 Waterfowl

1. To band waterfowl in Eastern Canada.

MNGT IMP Representative banding of waterfowl in pre-season concentration areas is required in order to obtain data needed on mortality, productivity, hunter pressure, effect of regulations, and general information on migration and distribution of kill.

PRNC INV Harold Lacaillade

TELE 603/271-2641.

010 Waterfowl

1. To band waterfowl in Eastern Canada.

MNGT IMP Representative banding of waterfowl in pre-season concentration area is required in order to obtain data needed on mortality, productivity, hunter pressure, effect of regulations, and general information on migration and distribution of sporting mortality.

PRNC INV Harold Lacaillade

TELE 603-271-2641.

011 Turkey

1. To restore the wild turkey into suitable habitat in New Hampshire.

PRNC INV Ted Walski

TELE 603/271-2461.

012 Turkey

1. To restore the wild turkey into suitable habitat in New Hampshire.

PRNC INV Ted Walski

TELE 603/271-2461.

013 Furbearers

1. To determine the annual trend in field population of certain furbearer species.

PRNC INV Ted Walski

TELE 603/271-2461.

014 Furbearers

1. To determine the annual trend in field population of certain furbearer species.

PRNC INV Ted Walski

TELE 603/271-2461.

New Hampshire

015 Furbearers

1. To manage furbearer populations on state lands.

PRNC INV Eric Orff

TELE 603/271-2461.

016 Furbearers

1. To obtain data relative to the New Hampshire furbearer harvest.

PRNC INV Eric Orff

TELE 603/271-2461.

017 Furbearers

1. To obtain data relative to the New Hampshire furbearer harvest.

PRNC INV Eric Orff

TELE 603/271-2461.

018 Furbearers

1. To manage furbearer populations on state lands.

PRNC INV Eric Orff

TELE 603/271-2461.

019 Black Bear

1. To collect and evaluate biological information concerning black bears in New Hampshire.

PRNC INV Eric Orff

TELE 603/271-2461.

020 Black Bear

1. To collect and evaluate biological information concerning black bears in New Hampshire.

PRNC INV Eric Orff

TELE 603/271-2461.

New Hampshire

021 Waterfowl

1. To investigate New Hampshire waterfowl resources.
2. To contribute data for establishing populations and distributions of wintering waterfowl.

PRNC INV Harold Lacaillade

TELE 603/271-2641.

New Jersey

001 Hawks/Eagles/Falcons

1. To increase the number of breeding bald eagles in New Jersey to a level commensurate with contemporary carrying capacity.
2. To monitor and protect wintering bald eagles.

MNGT IMP This project will result in the introduction of bald eagles into suitable habitats to restore populations.

PRNC INV Pete McLain

TELE 609/292-9410.

002 Whitetail Deer

1. To determine minimum population on a zone basis.
2. To monitor changes in deer density and distribution.

PRNC INV Dave Person

TELE 201/735-8793.

003 Whitetail Deer

1. To collect, evaluate and disseminate deer resource information to the public.

PRNC INV Dave Burke

TELE 201/735-8793.

004 Whitetail Deer

1. To collect information on deer condition and productivity.

PRNC INV Dave Burke

TELE 201/735-8793.

005 Whitetail Deer

1. To determine the size, distribution and extent of annual deer losses.

PRNC INV Dave Burke

TELE 201/735-8793.

006 Waterfowl

1. To band waterfowl in eastern Canada.

MNGT IMP Representative banding of waterfowl in pre-season concentration areas is required in order to obtain data needed on mortality, productivity, hunter pressure, effect of regulations, and general information on migration and distribution of sport mortality.

PRNC INV Bob Itchmoney

TELE 609/292-9481.

007 Bobcat.

1. To re-establish a wild self-sustaining population of bobcats in suitable areas of New Jersey.

PRNC INV Patricia McConnell

TELE 609/292-6685.

008 Furbearers

1. To determine the annual harvest level and recreation/economic values of furbearers in New Jersey.

PRNC INV Patricia McConnell

TELE 609/292-6685.

009 Beaver

1. To determine distribution status and population trends of river otter in New Jersey.

PRNC INV Patricia McConnell

TELE 609/292-6685.

010 Otter

1. To determine distribution and population trends of river otter in New Jersey.

PRNC INV Patricia McConnell

TELE 609/292-6685.

011 Black Bear

1. To determine the distribution and relative abundance of black bear in New Jersey.

PRNC INV Patricia McConnell

TELE 609/292-6685.

New Jersey

012 Coyote

1. To document all reported occurrences of coyote in New Jersey.

PRNC INV Patricia McConnell

TELE 609/292-6685.

013 Mammals, All Birds

1. To diagnose and monitor diseases of mammalian and avian species other than furbearers, deer and waterfowl.

PRNC INV Dr. Doug Roscoe

TELE 201/735-8795.

014 Whitetail Deer

1. To diagnose, monitor and determine the magnitude of deer losses due to disease.

PRNC INV Dr. Doug Roscoe

TELE 201/735-8759.

015 Furbearers

1. To diagnose, monitor and determine the magnitude of furbearer losses due to disease.

PRNC INV Dr. Doug Roscoe

TELE 201/735-8795.

016 Waterfowl

1. To diagnose, monitor and determine the magnitude of waterfowl losses due to disease.

PRNC INV Dr. Doug Roscoe

TELE 201/735-8793.

017 Turkey

1. To monitor wild turkey populations in occupied range.
2. To trap and transfer wild turkeys to uninhabited areas of New Jersey.
3. To monitor the harvest of wild turkeys during the hunting season.

MNGT IMP This project will provide information on the abundance, condition, or factors that affect turkey populations so as to develop population and habitat management strategies.

PRNC INV Bob Eriksen

TELE 201/735-8793.

018 Game Species

1. To determine the annual harvest and recreational values of New Jersey's game resource

MNGT IMP This project will provide information on public use and demand for wildlife and will aid in the determination of programs or actions to meet the demand.

PRNC INV Robert Erikson

TELE 609/628-2103.

019 Mourning Dove, Woodcock

1. To determine population parameters for upland wildlife species including woodcock, and mourning dove.

MNGT IMP This project will provide information on the abundance and condition of woodcock and mourning dove populations so as to develop population and habitat management strategies.

PRNC INV Robert Erikson

TELE 609/628-2103.

020 Black Bear

1. To determine the distribution and relative abundance of black bear in New Jersey.

MNGT IMP This project will provide information on the abundance, condition or factors which affect black bear populations so as to develop population and habitat management practices.

PRNC INV Robert Erikson

TELE 609/628-2103.

021 Coyote

1. To document all reported occurrences of coyote in New Jersey.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect coyote populations.

PRNC INV Robert Eriksen

TELE 609/628-2103.

New Jersey

022 Otter

1. To determine distribution and population trends of river otter in New Jersey.

MNGT IMP This project will provide information on the abundance, condition or factors which affect river otter populations.

PRNC INV Robert Eriksen

TELE 609/628-2103.

023 Bobcat

1. To re-establish a wild self-sustaining population of bobcats in suitable areas of New Jersey.

MNGT IMP This project will result in the introduction of bobcats into suitable habitats to sustain or enhance those populations.

PRNC INV Robert Ericksen

TELE 609/628-2103.

024 Raccoon, Fox, Muskrat

1. To determine population parameters of New Jersey's furbearer species so that population status can be determined.

MNGT IMP This project will provide information on the abundance, condition or factors which affect beaver populations.

PRNC INV Robert Eriksen

TELE 609/628-2103.

001 Nongame Wildlife

1. To investigate the status and to make recommendations on the management of the New Mexico Ridgenose Rattlesnake.

MNGT IMP This study will provide information on the abundance, conditions, or factors which affect endangered wildlife populations to develop population and habitat management practices.

PRNC INV John Hubbard

TELE 505/827-7894.

002 Mourning Dove

1. To determine annual population trends of mourning doves.
2. Coordinate resulting coo count data with USFWS.

MNGT IMP This study will provide information on the abundance, condition, or factors which affects wildlife populations to develop population and habitat management practices.

PRNC INV Jack Herring

TELE 505/827-7885.

003 All Wildlife

1. Co-operate with public land-use agencies and others in examination of wildlife habitats, evaluate problems and prepare management plans.

MNGT IMP Information from this project will be used to overcome, or moderate biological limiting factors that affect the growth or well-being of wildlife populations.

PRNC INV Jack Herring

TELE 505/827-7885.

004 Game Birds

1. Disseminate information derived from research and survey projects as pertaining to management of game birds in New Mexico.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Jack Herring

TELE 505/827-7885.

005 Turkey

New Mexico

1. Determine seasonal distribution, mortality and reproductive success of Merriam's turkey in the Sacramento Mountains, New Mexico.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Jack Herring

TELE 505/827-7885.

006 Cranes

1. Determine distribution, numbers, racial composition and food habits of sandhill cranes migrating and wintering in southwestern New Mexico.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Jack Herring

TELE 505/827-7885.

007 Game Birds

1. To measure trends in annual harvest of resident and migratory game birds of New Mexico.
2. To analyze data and make recommendations to apply information to game management.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Jack Herring

TELE 505/827-7885.

008 Canada Geese

1. Live trap wintering adult Canada geese in the Rio Grande Valley of New Mexico and transport to Brooks Wildlife Center, Alberta and pair band adult females with hatchery goslings.
2. Band and neck collar members of family group, release in east central Alberta.
3. Co-operate with and solicit help from Alberta and Saskatchwan, other high-line states, Canadian Wildlife Service and FWS in obtaining observations of neck-collared geese during migration and on wintering areas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Jack Herring

TELE 505/827-7885.

009 Puddle Ducks

1. Determine changes in mortality rates, distribution, numbers, sex and age ratios and relative recovery rates of the High Plains mallard population wintering in New Mexico.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Jack Herring

TELE 505/827-7885.

010 Waterfowl

1. Determine fall and winter waterfowl distribution and densities in New Mexico.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Jack Herring

TELE 505/827-7885.

011 Waterfowl

1. Determine magnitude and importance of lead poisoning in waterfowl in New Mexico.
2. Investigate reported waterfowl die-offs throughout the State to identify causative agent or agents.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Jack Herring

TELE 505/827-7922.

012 Mule Deer

1. Develop a mule deer population-environmental computer model for New Mexico.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV W. Haussamen

TELE 505/827-7885.

013 All Wildlife

1. Investigate the occurrence of disease or abnormalities in wild birds and mammals of New Mexico.

New Mexico

PRNC INV W. Haussamen

TELE 505/827-7885.

O14 Bobcat

1. Determine geographical distribution and population parameters (i.e., density, sex ratios, age structure, recruitment, mortality) of bobcats in New Mexico.
2. Develop a mathematical model for management of bobcats in New Mexico.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV W. Haussamen

TELE 505/827-7885.

O15 Mule Deer

1. Continue to develop and improve the current version of the population- environmental deer model in New Mexico.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV W. Haussamen

TELE 505/827-7885.

O16 Mule Deer

1. Determine legal and illegal deer harvest from regulated hunts in New Mexico.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV W. Haussamen

TELE 505/827-7885.

O17 Mule Deer

1. Estimate the age structure of mule deer on selected areas in New Mexico.
2. Estimate fetal rates for use as a measure of potential reproductive performance of yearling and adult deer on study areas of New Mexico.
3. Estimate survival rates of female segments of cohorts, as fawns and yearlings in New Mexico.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV W. Haussamen

TELE 505/827-7885.

018 Elk

1. Further identify the Eleaophorosis - Elk Complex in the Gila National Forest and develop a control for the disease in N. Mex.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV H. G. Kinzer (N. Mex. State U.)

TELE 505/646-1544.

019 Elk

1. Develop guidelines and specific data needs to develop a predictable elk population model in New Mexico.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV W. Haussamen

TELE 505/827-7885.

020 Elk

1. Identify disease pathogens and determine their impact on elk populations the T-Bar and Ft. Bayard study areas in New Mexico.
2. Identify nutritional or body condition factors affecting elk productivity and survival on the T-Bar and Ft. Bayard areas in New Mexico.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV W. Haussamen

TELE 505/827-7885.

021 Wild Sheep

1. To develop a strategy to test the hypothesis that desert bighorn sheep can coexist with psoroptic mites.
2. To determine if the San Andres population is genetically distinct from other desert bighorn sheep populations.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

New Mexico

PRNC INV Walter Haussaman

TELE 505/827-7885.

022 Wild Sheep

1. To monitor movements, distribution, and population dynamics of established populations of bighorn sheep in order to determine population trend.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Walter Haussamen

TELE 505/827-7885.

023 Wild Sheep

1. To release desert bighorn sheep in one area determined to be suitable habitat and monitor population for a) survival rates, b) productivity rates, c) movements, d) distribution, and e) population structure.
2. To determine seasonal forage utilization by desert bighorn sheep transplanted to suitable habitats.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Walter Haussaman

TELE 505/827-7885.

024 Wild Sheep

1. To develop a standardized quantitative system for evaluating the suitability of historic Rocky Mountain bighorn and other suitable environments in New Mexico.
2. To identify historic Rocky Mountain bighorn habitats and other potentially acceptable habitats, using the evaluation system developed under Job Objective 1, for reintroduction and introduction of Rocky Mountain bighorn.
3. To identify methods of accomplishing the evaluation of selected areas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Walter Haussaman

TELE 505/827-7885.

025 Mountain Lion

1. To document the ecology and dynamics of an unexploited cougar population.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Walter Haussaman

TELE 505/827-7885.

026 Elk

1. Collect management data from the Valle Vidal, E.S. Baker, and Greenwood elk herds to determine elk harvest and management recommendations.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and and habitat management practices.

PRNC INV 3.L. Morrison

TELE 505/827-7885.

027 Mountain Goat

1. Determine Siberian ibex population trends and sex and age class in New Mexico.
2. Determine harvest of Siberian ibex in New Mexico.
3. Coordinate Siberian ibex management information (habitat) with other land agencies, prepare harvest recommendations.
4. Inform public of harvest regulations and recreational opportunities for Siberian ibex in New Mexico.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV B. L. Morrison

TELE 505/827-7885.

028 Wild Sheep

1. Determine Barbary sheep populations in New Mexico.
2. Determine Barbary sheep harvest in New Mexico.
3. Recommend Barbary sheep harvest regulations in New Mexico.
4. Inform public of Barbary sheep harvest regulations and recreational opportunities in New Mexico.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV B. L. Morrison

TELE 505/827-7885.

New Mexico

029 Turkey

1. Determine turkey brood data by management unit in New Mexico.
2. Determine turkey harvest in New Mexico.
3. Recommend turkey harvest regulations for New Mexico.
4. Inform public of turkey harvest regulations and recreational opportunities in New Mexico.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV B. L. Morrison

TELE 505/827-7885.

030 Peccaries

1. Determine javelina harvest in New Mexico.
2. Determine javelina population trends and habitat conditions in New Mexico.
3. Recommend Javelina harvest regulations for New Mexico.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV B. L. Morrison

TELE 505/827-7885.

031 Mountain Lion

1. Determine mountain lion harvest in New Mexico.
2. Inform public of mountain lion harvest regulations and recreational opportunities in New Mexico.
3. Determine extent of mountain lion depradation in New Mexico.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populatiohs to develop population and habitat management practices.

PRNC INV B. L. Morrison

TELE 505/827-7885.

032 Mountain Goat

1. Determine Persian ibex population trends and sex and age class in New Mexico.
2. Determine harvest of Persian ibex in New Mexico.
3. Coordinate Persian ibex management information (habitat) with other land use agencies, prepare harvest recommendations.
4. Inform public of harvest regulations and recreational opportunities for Persian ibex in New Mexico.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV B. L. Morrison

TELE 505/827-7885.

033 Cervids

1. Determine Oryx population trends; sex and age class.
2. Determine harvest.
3. Coordinate Oryx management information (habitat) with other land use agencies; to recommend harvest levels for New Mexico.
4. Inform public of Oryx harvest regulations and recreational opportunities in New Mexico.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV B. L. Morrison

TELE 505/827-7885.

034 Wild Sheep

1. Determine bighorn sheep population trends.
2. Collect harvest information.
3. Recommend harvest regulations.
4. Inform public of harvest regulations and recreational opportunities.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV B. L. Morrison

TELE 505/827-7885.

035 Pronghorn

1. Determine antelope population estimates.
2. Complete landowner antelope harvest agreements.
3. Determine antelope harvest.
4. Determine antelope harvest recommendations.
5. Inform public of harvest regulations and recreational opportunities.

MNGT IMP This study wil provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV B. L. Morrison

TELE 505/827-7885.

036 Elk

New Mexico

1. Determine elk population trends and sex and age classification.
2. Determine elk harvest.
3. Recommend elk harvest regulations.
4. Inform public of harvest regulations and recreational opportunities.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habiat management practices.

PRNC INV B. L. Morrison

TELE 505/827-7885.

037 Mule Deer, Whitetail Deer

1. Determine deer sex and classification.
2. Determine browse use.
3. Determine legal deer harvest.
4. Identify and investigate methods for determining level and extent of illegal deer harvest.
5. Prepare information to recommend deer harvest recommendations.
6. Inform public of harvest regulations and recreational opportunity.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV B. L. Morrison

TELE 505/827-7885.

038 Black Bear

1. To determine harvest recommendations for bear.
2. To determine the extent of bear depredations in New Mexico.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practives.

PRNC INV B.L. Morrison

TELE 505/827-7885.

001 Whitetail Deer

1. To compare summer-fall deer population densities and distribution for a variety of habitats.
2. To document hunter reactions and effects on the quality of the hunting experience by implementing a fee hunting program.

PRNC INV Wm. F. Porter

TELE 518/582-4551.

002 Waterfowl

1. To band waterfowl in eastern Canada.

PRNC INV Fred Hartman - Penna. Game Comm.

TELE 717/865-2944.

003 Whitetail Deer

1. To predict thermal energy flux and snow conditions in relation to terrain and cover type for different weather conditions.

PRNC INV Dr. Aaron Moen

TELE 607/256-2106.

004 Vegetation

1. To determine forage production and cover characteristics in different plant communities in relation to forest stand characteristics.
2. To understand nutritive value of foods consumed by free-ranging animals.
3. To predict carrying capacity of different forest types.

PRNC INV Dr. Aaron Moen

TELE 607/256-2106.

005 Black Bear, Whitetail Deer, Furbearers, Turkey

1. To tabulate data including legal take, biological statistics, and resource user, etc.

PRNC INV Dave O'Dell

TELE 518/439-8057.

006 All Wildlife

New York

1. To Plan, design, and execute survey and inventory systems and support systems.

PRNC INV Dave O'Dell

TELE 518/439-8057.

007 Black Bear, Whitetail Deer, Furbearers, Waterfowl

1. To coordinate field inventories and data collection that are conducted periodically - Regionally and State-wide.

PRNC INV Dave O'Dell

TELE 518/439-8057.

008 Black Bear, Whitetail Deer, Furbearers, Turkey

1. To tabulate data including legal take, biological statistics, and resource user, etc.

PRNC INV Dave O'Dell

TELE 518/439-8057.

009 All Wildlife

1. To Plan, design, and execute survey and inventory systems and support systems.

PRNC INV Dave O'Dell

TELE 518/439-8057.

010 Black Bear, Whitetail Deer, Furbearers, Turkey

1. To coordinate field inventories and data collection that are conducted periodically - Regionally and State-wide.

PRNC INV Dave O'Dell

TELE 518/439-8057.

011 All Wildlife

1. To plan and conduct studies of the impact of new agricultural practices on wildlife and wildlife habitats.

PRNC INV Milo E. Richmond

TELE 607/256-2014.

012 All Wildlife

1. To provide a framework in the form of data sources, inventory, methodology, data processing and planning procedures for developing wildlife habitat inventories.

PRNC INV Jean Gawalt

TELE 518/457-3730.

013 Habitats

1. To provide short-term habitat inventory on an "as-needed basis," and to conduct habitat inventories of Wildlife Management Areas.

PRNC INV Jean Gawalt

TELE 518/457-3730.

014 Beaver, Black Bear

1. To identify and delineate the geographic range of black bears (Catskills) and beaver (Statewide).

PRNC INV Bart Guetti

TELE 518/457-3730.

015 Wetlands

1. To complete, maintain and update the wetlands inventory.

PRNC INV Jean Gewalt

TELE 518/457-3730.

016 Beaver

1. To determine the utility of wetlands inventory data (W-163-R-II-1) as a predictor of active, potential or as a record of historical beaver colony sites.

PRNC INV Walt Wiley

TELE 518/457-3730.

017 All Wildlife

1. To determine the historical status of wetlands in New York.

PRNC INV Russ Cole

New York

TELE 518/457-3730.

018 All Wildlife

1. To determine the degree to which the freshwater wetlands act has been effective in protecting wetlands.

PRNC INV Walter Wiley

TELE 518/457-3730.

019 Furbearers

1. To assess, develop and coordinate ongoing furbearer management investigations and projects in an integrated statewide furbearer management program.

PRNC INV Gary Parsons

TELE 518/439-8082.

020 Endangered Mammals, Endangered Birds

1. To develop, coordinate and implement a program relating to endangered and threatened species in New York.
2. To disseminate to appropriate publics, information relating to the endangered and threatened species.

PRNC INV Pete Nye

TELE 518/457-5782.

021 Nongame Wildlife

1. To determine the range and habitat requirements of the "listed" species in New York (bats, native rats/mice, raptors, grouse, herons, bitterns, perching birds, non-game birds)
2. To determine distribution and status of potentially threatened and endangered species in New York.

PRNC INV Peter Nye

TELE 518/457-5782.

022 Hawks/Eagles/Falcons

1. To locate and monitor present and historic bald eagle nesting sites, wintering areas and migration routes.
2. To restore viable populations of breeding bald eagles via "hacking" and nest site manipulation.

MNGT IMP Will aid in the recovery of an endangered species.

PRNC INV Peter E. Nye

TELE 518/567-5782.

023 Waterfowl, Mink, Otter, All Wildlife

1. To identify the potential for detrimental impact of toxic environmental contaminents on wildlife resources.
2. To develop and apply methods for assessing the extent of damage to the resource.

PRNC INV Bob Foley

TELE 518/567-3730.

024 All Wildlife

1. To gather information on occurrence and effects of agricultural pesticides in wildlife resources.
2. To apply techniques and methods for measuring and evaluating damage to wildlife resources.

PRNC INV Robert Foley

TELE 518/567-3730.

025 All Wildlife

1. To develop an in-service training package and reference source for foresters and wildlife biologists.
2. To teach basic concepts relating to timber and wildlife management and the relationship of various timber management systems to wildlife distribution and abundance.

PRNC INV Dr. Robert Chambers

TELE 315/470-6500.

026 Waterfowl

1. To assess the wintering waterfowl situation on Long Island.

PRNC INV Steve Sanford

TELE 518/439-0197.

027 Partridge

1. To coordinate and evaluate population establishment efforts.

PRNC INV Dave Austin

TELE 518/439-0725.

New York

028 Pheasant

1. To determine pheasant range and distribution.
2. To develop a means for measuring pheasant harvest.
3. To isolate major limiting factors to pheasant distribution and density.
4. To plan and coordinate wild pheasant habitat management programs.

PRNC INV Dave Austin

TELE 518/457-5750.

029 Turkey

1. To evaluate turkey hunting regulations.
2. Analysis of turkey age/sex data.
3. To monitor turkey hunter activity and turkey harvest.
4. To coordinate and evaluate turkey population establishment efforts.

PRNC INV Dave Austin

TELE 518/439-0725.

030 Grouse

1. To develop and evaluate alternative objectives and strategies for ruffed grouse management programs in New York.

PRNC INV Dave Austin

TELE 518/439-0725.

031 Whitetail Deer

1. To develop and refine bases for making hunting season recommendations.
2. To insure that deer populations are maintained at compatible levels.

PRNC INV Nate Dickinson

TELE 518/457-4214.

032 Whitetail Deer

1. To provide directions to the State deer program.
2. To coordinate the deer program.
3. To disseminate project results.

PRNC INV Nate Dickinson

TELE 518/457-4214.

New York

033 Black Bear

1. To collect and analyze data from dead bears and use that data as a basis for population model.
2. To determine frequency and severity of bear conflicts, and attitudes of people toward bears.
3. To derive a biologically sound bear hunting season.

PRNC INV John O'Pezio

TELE 518/457-4214.

No. Mariana Isles

001 Nongame Birds

1. To determine status and distribution of shorebirds, seabirds, and landbirds.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing shorebirds, seabirds and inland freshwater birds on Commonwealth of the Northern Mariana Islands.

PRNC INV Arnold I. Palacios

TELE 9-011-670-7125.

002 Columbiforms

1. To determine status, distribution and harvest of Philippine Turtle Dove, Marianas Fruit Dove and White-Throated Ground Dove.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing the Philippine Turtle Dove, Marianas Fruit Dove and White-throated Ground Dove on Commonwealth Marianas Islands.

PRNC INV Arnold I. Palacios

TELE 9-011-670-7125.

003 Endangered Birds

1. To determine status and distribution of Micronesian Megapod, Nightingale Reed-Warbler, and Tinian Monarch.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing the Micronesian Megapod, Nightingale Reed- Warbler and Tinian Monarch in Commonwealth of the Northern Mariana Islands.

PRNC INV Arnold I. Palacios

TELE 9-011-670-7125.

004 Bats, Cervids, Feral Animals

1. To determine status, distribution and harvest of Sambar Deer, Feral Goat, Feral Pig, and Marianas fruit bat.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing the Marianas Fruit bat, Sambar Deer, Feral Goat and Feral Pig on the Commonwealth of the Northern Marianas Island.

PRNC INV Arnold I. Palacios

TELE 9-011-670-7125.

005 All Wildlife

1. To review and comment on land use and development programs that may impact wildlife.

MNGT IMP Provide information and recommendation on proposed land use and development projects for the purpose of benefitting wildlife.

No. Mariana Isles

PRNC INV Arnold I. Palacios

TELE 9-011-670-7125.

North Carolina

001 Fox Squirrel

1. To determine growth rates, longevity, birth rates, reproductive season, age and sex structure and an estimate of fox squirrel populations on two study areas.
2. To determine habitat use, food and resting habits and seasonal movements of fox squirrels on two study areas.
3. To determine the affect of sympatric competition of fox squirrels and gray squirrels.

MNGT IMP Provide information on the abundance, condition, or factors which affect wildlife population to develop population and habitat management practices.

PRNC INV Peter D. Weigl.

002 Waterfowl

1. Determine statewide waterfowl population trends, fluctuations, and species composition of local, migratory, and over wintering populations.
2. Determine harvest, distribution of harvest, and hunter success.
3. To obtain band return data to estimate survival rates and movement patterns of waterfowl.

MNGT IMP Provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Dennis Luszez.

003 Cottontail

1. Determine home ranges and activity patterns for radio-marked cottontails on each study site.
2. Develop a technique for comparing physical condition of rabbits occupying different habitat types.
3. Select a research and demonstration area on public game lands to allow demonstrations of best management procedure.

MNGT IMP Provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Carl W. Betsill.

004 Whitetail Deer

1. Ascertain the level, structure, and distribution of the total annual deer mortality in North Carolina.
2. Determine density levels and physiological condition of certain deer herds and evaluate habitat availability and condition resulting from establishment and/or impingement by those herds.

MNGT IMP Provide information on the abundance, condition, or factors which affect wildlife population to develop population and habitat management practices.

PRNC INV Scott Osborne.

005 Black Bear

1. To determine basic parameters of the black bear population from hunter kills and observations.
2. Determine and study specific population parameters and dispersal patterns of black bears in response to habitat losses.

MNGT IMP Provide information on the abundance, condition, or factors which affect populations to develop population and habitat management practices.

PRNC INV John M. Collins.

006 Mourning Dove

1. To secure information on annual mourning dove production and breeding population trends.

MNGT IMP Provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Carl W. Betsill.

007 Black Bear

1. To determine and to compare specific population characteristics and movements of a sanctuary and non-sanctuary population.
2. Determine forest cover type utilization of bears in study area.
3. Locate and describe the characteristics of den sites used by black bears in the study area.

MNGT IMP Resultts will be used to evaluate management practices to determine their effectiveness toward accomplishment of management goals.

PRNC INV John M. Collins.

008 Turkey

1. To monitor turkey populations statewide with emphasis on managed areas and restoration areas.
2. To document progress of the restoration program and population responses to habitat and regulatory changes.

MNGT IMP Provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Brian D. Hyder.

009 All Wildlife

1. To identify wildlife diseases, their causes and implications and to devise and recommend remedial measures.

MNGT IMP Be used to overcome or moderate biological limiting factors that affect wildlife populations to develop population and habitat management practices.

PRNC INV Scott Osborne.

North Carolina

010 Furbearers

1. Disseminate information on furbearer research and management applicable to North Carolina.
2. Monitor populations and evaluate habitat conditions of furbearers in mixed forests and beaver ponds.
3. Determine the annual harvest of furbearers in North Carolina and structure and distribution of that harvest.

MNGT IMP Provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Randall C. Wilson.

011 Feral Pigs

1. Determine the magnitude and distribution of the annual wild boar harvest.
2. Determine current range and delineate occupied boar range on a map.

MNGT IMP Provide information on the abundance, condition, or factors which affect wildlife population to develop population and habitat management practices.

PRNC INV John M. Collins.

012 Small Game

1. To establish regular, long term indices to population sizes of popular small game animals on selected public hunting areas.
2. To obtain estimates on sex and age characteristics of the harvest
3. To determine success rates of the hunters.
4. To obtain information about food habits of small game on selected public hunting areas.

MNGT IMP Provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Carl W. Betsill.

013 Whitetail Deer

1. To determine the factors limiting deer quality and harvest on selected areas in the mountain region of wester North Carolina.

MNGT IMP Data will be used to overcome or moderate biological limiting factors that affect the growth or well-being of wildlife populations.

PRNC INV A. Sydney Johnson

TELE 404/542-1555.

014 Game Species

North Carolina

1. To estimate harvest, number of participants and number of trips for major game species on a statewide basis.

MNGT IMP Provide information on public use and demand for wildlife and will aid in the determination of programs or actions to meet the demand.

PRNC INV Carl W. Betsill.

015 Turkey

1. To determine home range and habitat use characteristics of the wild turkey in the Roanoke River flood plain.

MNGT IMP Provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Brian Hyder.

North Dakota

001 Small Game

1. To determine whether small mammal (wild mice) populations can be used as a yardstick to measure the level of EHD infection in deer herds.

MNGT IMP Would provide wildlife managers with a simple method for determing the level of EHD infection in deer herds. Depending on the level, appropriate management action could then be taken.

PRNC INV Steve Richards

TELE 701/552-3630.

002 Pheasant

1. To determine the annual production of pheasants, pre-hunting season population densities, hatching chronolgy, age ratios of pheasants harvested, annual harvest, hunter success, hunting pressure, post-hunting season sex-ratios, and the spring breeding population index.

MNGT IMP Will provide information to managers to develop harvest recommendations for pheasants that will result in the greatest sustained use of the resource.

PRNC INV Lowell Tripp

TELE 701/742-2271.

003 Pronghorn, Mule Deer, Whitetail Deer

1. Determine which species of Culicoides occur in enzootic EHD areas and how the Culicoides (species & their pop. dynamics) vary between enzootic and non-enzootic areas.
2. Determine if persistent EHD infections occur in Cervids and antelope a) In blood, where it could be transmitted by biting arthropods. b) In semen, where it could be transmitted during breeding.

MNGT IMP Will provide managers with information for controlling EHD and blue tongue virus in deer and antelope.

PRNC INV Steve Richards

TELE 701/552-3630, (Dr. Thomas Yuill, College of Veterinary Medicine)

004 Mule Deer

1. To determine the normal dispersal patterns and chronologies of young mule deer from parental home ranges in a high population density mule deer area with only light energy (gas and oil) development.
2. To determine the size of mule deer seasonal home ranges in an area impacted by high energy (gas and oil) development and intense associated support activities.

MNGT IMP To provide information to managers for making management recommendations to minimize the impact of proposed oil and gas development projects on mule deer.

PRNC INV James McKenzie

TELE 701/224-4872 or 2180.

005 Moose, Elk

1. To obtain population estimates and distribution of moose and elk and its recreational potential.

MNGT IMP To provide information to managers to develop harvest regulations for elk and moose that will provide the greatest sustained yield.

PRNC INV James McKenzie

TELE 701/224-4872 or 2180.

006 Mule Deer, Whitetail Deer

1. To determine population trends, harvest by sex, age and species, abundance and distribution by deer units.

MNGT IMP Will provide information to managers to develop harvest regulations for deer that will result in the greatest sustained yield.

PRNC INV James McKenzie

TELE 701/224-4872, or 2180.

007 Tree Squirrel

1. To determine species distribution and population estimates, and harvest data for tree squirrels.

MNGT IMP Will provide information to managers to develop harvest regulations for squirrels that will result in the greatest yield.

PRNC INV Lowell Tripp

TELE 701/742-2271.

008 Pronghorn

1. To estimate population densities, sex, production ratios and harvest figures by sex and age.

MNGT IMP Will provide information to managers to develop harvest regulations for antelope that will produce the greatest sustained yield.

PRNC INV Jim McKenzie

TELE 701/224-4872, or 2180.

009 Grouse

1. To develop a ruffed grouse habitat improvement program through aspen management.
2. To document aspen regeneration and growth on clearcut areas.

MNGT IMP Will provide information to managers to improve ruffed grouse habitat improvement programs through aspen management.

North Dakota

PRNC INV John Schulz

TELE 701/776-5185.

010 Whitetail Deer, Coyote

1. Determine the number of coyote families consuming white-tailed deer and the relative amount of deer to other prey species during the denning season.

MNGT IMP Will provide managers with information on the importance or non-importance of the management of coyote in regard to deer population.

PRNC INV Stephen Allen

TELE 701/224-3344.

011 Fox

1. To determine the mechanics of annual dispersal as influenced by various factors to include population density, sex, age, litter size, physio- graphical region and physical barriers, annual harvest rates, and sex ratios in juvenile populations.

MNGT IMP Will provide information to managers to evaluate how the red foxes behavior impacts game species that are a prey species for the fox.

PRNC INV Stephen Allen

TELE 701/224-3344.

012 Coyote

1. To determine if discrete behaviorally separate family groups of coyotes exist in the spring as countable entities within the population.
2. To determine the relationship and composition of adjacent neighboring families.

MNGT IMP Will provide a new technique to managers for censusing coyote populations.

PRNC INV Stephen Allen

TELE 701/224-3344.

013 Furbearers

1. To determine population densities of red foxes in the four major physiographic regions of North Dakota.
2. To determine the numbers of all commercially important fur species that are sold.
3. To determine the sport harvest of red fox and coyotes.

MNGT IMP To provide information to managers for developing regulations for furbearers, coyote and red foxes.

PRNC INV Stephen Allen

TELE 701/224-3344.

014 Waterfowl, Pheasant

1. Describe the reproductive success of gamebird populations nesting in a near predator-free environment.
2. Determine the importance of different vegetation management programs to gamebirds nesting on Mallard Island.
3. Determine the production and survival of waterfowl broods produced from Mallard Island and other selected sites in the Garrison Reservoir.
4. Conduct an experiment to determine the impacts of North Dakota's common mammalian predators on gamebirds nesting under good habitat conditions.
5. Construct habitat management models which can be applied to the future operation of Mallard Island, other intensively managed wildlife areas,and to private agricultural lands.

MNGT IMP Will provide managers with information on the impact of predators on breeding populatins of waterfowl and pheasants. Management decisions can then be made as to if and when control actions are necessary.

PRNC INV Gerald Kobriger

TELE 701/227-2343.

015 Canada Geese

1. To trap and band Canada geese to determine annual trends, age ratios, population turnover and rate, and effects of different harvest regulations on the Tall Grass Prairie Canada goose population.
2. To determine the size and distribution of the Tall Grass Praire Canada goose population during early winter.

MNGT IMP To provide information to managers for making recommendations for setting hunting regulations.

PRNC INV Mike Johnson

TELE 701/224-2180.

016 Waterfowl

1. To determine average brood size, brood indices, species composition, production water indices, fall flight estimates, harvest information, and wintering populations of waterfowl.

MNGT IMP To provide information to managers for developing maximum recreational opportunities consistent with the welfare of waterfowl populations, habitats, and international treaties.

PRNC INV Mike Johnson

TELE 701/224-2180.

North Dakota

017 Geese

1. To cooperate with other agencies in developing a management plan and collecting necessary data for responsible conservation and exploitation of the snow goose population.

MNGT IMP To provide maximum recreational opportunities consistent with the welfare of snow geese, their habitat, and international treaties.

PRNC INV Mike Johnson

TELE 701/224-2180.

018 Game Species

1. To determine the cause, scope and intensity of morbidity or death in selected game birds and mammals.

MNGT IMP Will provide managers with information on the extent of the role that diseases play in affecting game populations.

PRNC INV Stephen Richards

TELE 701/552-3630.

019 Bobcat

1. To annually obtain harvest data, sex and age composition and harvest distribution.

MNGT IMP Will provide managers with information for developing harvest regulations that will result in the greatest sustained yield. Will also prove that the state has adequate information for managing a harvest of the species and thus can alleviate future lawsuits.

PRNC INV Stan Kohn

TELE 701/224-3344.

020 Fox

1. To determine if methods of density related annual survival rate esti- mation in northern prairie red fox populations can be developed accurate to the 80 percent level of confidence.

MNGT IMP Will provide more accurate information to managers for setting regulations for the harvest of red fox.

PRNC INV Stephen Allen

TELE 701/224-3344.

021 Mourning Dove

1. To determine the density and distribution of mourning doves during the late summer.

2. To obtain an estimate of the number of hunters and the resulting harvest of mourning doves in North Dakota.

MNGT IMP To provide information to managers for developing maximum recreational opportunities consistent with the welfare of the morning dove, habitat, and international treaties.

PRNC INV Mike Johnson

TELE 701/224-2180.

022 Grouse

1. To determine annual reproductive success, age and sex data, harvest information, and population indices of spring populations of sharp- tailed grouse, sage grouse, and pinnated grouse.

MNGT IMP Will provide information to managers to develop harvest regulations for sharptail grouse and sage grouse that will result in the greatest sustained yield.

PRNC INV Gerald Kobriger

TELE 701/227-2343.

023 Prairie Dog

1. To monitor the behavior activity and growth of two re-established prairie dog towns.
2. To monitor related vegetation changes.

MNGT IMP Will provide managers with information on reestablishing populations of a species which has declined far below historic populations.

PRNC INV Stan Kohn

TELE 701/224-3344.

024 Turkey

1. To obtain turkey population trend data; body weight, age and sex, and hatching chronoloy of hunter-killed turkeys; and annual harvest sucess and hunter pressure.

MNGT IMP Will provide information on population trend, distribution, and harvest for regulatory processes.

PRNC INV Lowell Tripp

TELE 701/742-2271.

025 Grouse

1. To obtain population, reproductive, and harvest data to monitor areas of highest bird density.
2. To monitor grouse color phase changes in relation to populations.

MNGT IMP Will provide information to managers to develop harvest regulations for ruffed grouse that will result in the greatest sustained yield.

North Dakota

PRNC INV John Schulz

TELE 701/776-5182.

026 Partridge

1. To determine average covey brood size, relative abundance of broods, age and sex data, harvest information, and population indices of gray partridge.

MNGT IMP Will provide information to managers to develop harvest regulations for Hungarian partridge that will result in the greatest sustained yield.

PRNC INV John Schulz

TELE 701/776-5185.

027 Canada Geese

1. To establish by 1986 1000 breeding pairs of giant Canada geese outside major refuge areas.
2. To determine mortality rates for wild trapped Canada geese and compare to hand reared geese.
3. To publish a bulletin on Canada geese in North Dakota and update banding / recovery information.

MNGT IMP To provide information to managers for developing maximum recreational opportunies consistent with the welfare of giant Canada geese, habitat, and international treaties.

PRNC INV Mike Johnson

TELE 701/224-2180.

028 Wild Sheep

1. Conduct annual aerial surveys which will provide data on herd structure, distribution and density.
2. Obtain biological and harvest information from all bighorn sheep harvested during the annual hunting seasons.

MNGT IMP Will provide information to managers to develop harvest regulations for bighorn sheep that will result in the greatest sustained yield.

PRNC INV James McKenzie.

029 Ducks, Grouse, Upland Game

1. To determine use of mixed grass prairie by birds following 1) short duration grazing, 2) deferred grazing rotation, 3) season long grazing, 4) unused pasture.
2. Determine if bird nesting densities among grazing systems and unused areas are attributable to vegetational characteristics.
3. To develop management recommendations for rangeland incorporating land use types that benefit both bird species and livestock.

MNGT IMP Will enable managers to develop management recommendations for rangeland incorporating land use types that benefit both bird species and livestock.

PRNC INV Dr. Harold Goetz

TELE 701/224-2180.

030 Cottontail

1. To obtain population and harvest trend data.

MNGT IMP Will assist managers in obtaining game status for this animal.

PRNC INV Lowell A. Tripp

TELE 701/742-2271.

031 Furbearers

1. To evaluate the influence of various physical factors that affect furbearer harvest.

MNGT IMP Will provide managers with information that explains variations in furbear harvest from what was expected when regulations were set.

PRNC INV Stephen Allen

TELE 701/224-3344.

032 Grouse

1. Compare the effects of short-duration, twice-over rotation, and season-long grazing on sharp-tailed grouse nest success, nest site selection and brood survival.
2. Determine habitat use and selection by sharp-tailed grouse broods in relations to these different grazing systems.

MNGT IMP Will provide information to managers for developing recommendations for livestock grazing on private land that will be compatible with sharp-tailed grouse.

PRNC INV John Schulz

TELE 701/776-5185.

033 Coyote

1. To test the hypothesis (P = 0.10) that ovulation rates, litter sizes, percent pre-natal mortality and whelping dates are variously affected by the independent variables of female age class, relative condition, population density and adult sex ratios in the spring in Northern Plains coyotes.

MNGT IMP Will provide managers with data to understand the population dynamics of the coyote so as to make better decisions regarding (1) management of coyote populations and their prey species, (2) control actions, and (3) setting regulations.

North Dakota

PRNC INV Stephen Allen

TELE 701/224-3344.

034 Partridge

1. To identify habitats important to partridge production and survival.
2. To determine nesting success and spring and summer chick survival.
3. To define seasonal cover preferences, range sizes and movements.
4. To determine winter and pre-nesting populations.

MNGT IMP Will provide information to managers to manage gray partridge habitat in a manner that will produce the highest population of gray partridge possible.

PRNC INV John Schulz

TELE 701/776-5185.

NEBRASKA

001 Pheasant

1. To determine the effect of ecofallow tillage (no-till) on pheasant in southwest Nebraska.

PRNC INV Jim Mitchell

TELE 402/464-0641.

Ohio

001 All Wildlife

1. To analyze data obtained and prepare and publish a final report.

MNGT IMP This study will provide information on public use and demand for wildlife and will aid in the determination of programs or actions to meet the demand.

PRNC INV John Henry

TELE 614-747-2525.

002 Pheasant

1. Determine land-use change in four pheasant study townships and compare habitat.
2. To evaluate population fluctuations in response to wildlife habitat improvements in each of four study townships.

MNGT IMP This study will be used to assess management practices to determine their effectiveness toward accomplishment of management goals.

PRNC INV John Henry

TELE 614/747-2525.

003 Quail

1. To determine the survival and reproduction rate following release of quail as related to spring vs. late summer release.
2. To compare survival and productivity of 1st generation hybrid and wild relocated bobwhite.

MNGT IMP This study will result in the introduction of wildlife species into suitable habitats to restore populations.

PRNC INV John J. Henry

TELE 614/747-2525.

004 Tree Ducks

1. Annually develop wood duck regulations that will permit optimum production and harvest of wood ducks, without impairing future populations. Determine nest box utilization. Determine production.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Karl Bednarik

TELE 419/898-0960.

005 Waterfowl

Ohio

1. To develop annual waterfowl regulations.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Karl Bednarik

TELE 419/898-0960.

006 Canada Geese

1. Annually to develop optimum harvest regulations of Ohio nesting Canada geese that will not impair the potential of established Ohio local Canada goose flocks. To determine annual production and mortality rates of local Canada geese. To determine pre- and postseason Canada goose populations. To determine rate and distribution of harvest.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Karl Bednarik

TELE 419/898-0960.

007 Canada Geese

1. Monitor Sept. thru Jan. population fluctuations on management areas.
2. Determine Harvest on public and private lands statewide.
3. To pinpoint northern breeding areas and wintering grounds of TVP geese and assess areas and rates of harvest.
4. To determine age, sex, subspecies composition, and total harvest of Canada geese on public lands.
5. To determine population trends from inventory of winter concentration areas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Karl E. Bednarik

TELE 419/898-0960.

008 Waterfowl

1. Serve as technical advisor to Chief, Ohio Div. of Wildlife, who is Ohio's voting delegate to the Mississippi Flyway Council.
2. Participate as Ohio's representative in the technical sessions of the Mississippi Flyway Council.
3. To carry out Technical Sessions Committee assignments involving collection of waterfowl data required for Council studies and activities.

MNGT IMP This study will provide information to assist the public, resource managers, and others in interpreting, understanding, and utilizing research results.

PRNC INV Karl Bednarik

Ohio

TELE 419/898-0960.

009 Grouse

1. Survey of early summer insect numbers in control and cut over area and effect upon grouse.
2. Grouse brood use of control and cut over areas.
3. Quantity of fall and winter grouse foods on control and cut areas.
4. Location and physical condition of March and April drumming males in relation to treatment and control sites.
5. October and March locations and flush rates of grouse on transects in treatment and control areas.
6. To determine hunting pressure and success.
7. To determine winter grouse use of control and treatment areas.

MNGT IMP This study will be used to assess management practices to determine their effectiveness toward accomplishment of management goals.

PRNC INV Robert J. Stoll

TELE 614/664-2745.

010 Turkey

1. To trap and transplant wild turkeys into unoccupied and understocked range. Turkey censuses, survey and harvest data.
2. Evaluation of check stations data.
3. To annually ascertain the location of occupied turkey range.

MNGT IMP This study will result in the introduction of wildlife species into suitable habitats to restore populations.

PRNC INV Robert Donohoe

TELE 614/664-2745.

011 Whitetail Deer

1. Collection of harvest, accidental kill, and deer numbers and condition data management purposes.
2. Operate deer aging stations for collection of sex and age information for determining growth rates and index to range conditions.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Robert Stoll

TELE 614/664-2475.

012 Grouse

Ohio

1. Trapping and censusing of drumming male grouse.
2. Ruffed grouse brood use of selected clearcuts in July and August.
3. Hunter surveys.
4. To specify vegetation response (stem density + species composition) to management.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Robert Stoll

TELE 314/664-2745.

013 Grouse

1. Ruffed grouse drumming survey and inventory.
2. To obtain grouse flushes per hour from hunters.
3. To obtain ruffed grouse observations from squirrel hunters.
4. To obtain grouse observations per hour for N. C., E. C., and S.E.OH from spring turkey hunter questionaires.
5. To obtain March and April locations of drumming grouse; to determine their location, longevity, and density relative to management activities.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Robert J. Stoll

TELE 614/664-2745.

014 Furbearers

1. Annually to develop furbearer harvest regulations.

MNGT IMP This study will provide information on public use and demand for wildlife and will aid in the determination of programs of actions to meet the demand.

PRNC INV Karl E. Bednarik

TELE 419/898-0960.

015 Cottontail

1. To annually recommend cottontail harvest regulations.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Stephen E. Miller

TELE 614/747-2525.

Ohio

O16 Gray Squirrel, Fox Squirrel

1. Annually to develop and recommend gray and fox squirrel harvest regulations.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Stephen E. Miller

TELE 614/747-2525.

O17 Quail

1. Annually to develop and recommend harvest regulations for bobwhite.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Stephen E. Miller

TELE 614/747-2525.

O18 Furbearers, Game Species

1. To determine annually the percent of hunters and trappers pursuing each species.
2. Annually to determine the average number of trips taken for each species.
3. Annually to determine the hunter-trapper success for each species.
4. Annually to determine the percent of hunter-trapper pressure occurring on public land.
5. Annually to estimate the total game-furbearer harvest in Ohio.

MNGT IMP This study will provide information on public use and demand for wildlife and will aid in the determination of programs or actions to meet the demand.

PRNC INV Stephen E. Miller

TELE 614/747-2525.

O19 Waterfowl

1. To specify characteristics of Ohio waterfowlers and their attitudes concerning waterfowl hunting regulations.

MNGT IMP Provide information on public use and demand for wildlife and will aid in the determination of programs or actions to meet the demand.

PRNC INV Karl E. Bednarik

TELE 419/898-0960.

Ohio

020 Pheasant

1. Annually to develop and recommend harvest regulations for pheasants.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Stephen E. Miller

TELE 614/747-2525.

Oklahoma

001 Whitetail Deer

1. Determine health and nutritional status of white-tailed deer in Oklahoma.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Dr. Alan A. Kocan

TELE 405/624-6340.

002 Ducks

1. Determine incidence of lead shot in waterfowl gizzards and shot availability on selected waterfowl hunting areas in Oklahoma.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV L. Due

TELE 918/683-1031.

003 Mourning Dove

1. To determine annual status of breeding population of mourning doves in Oklahoma.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV L. Due

TELE 918/683-1031.

004 Waterfowl, Big Game, Upland Birds

1. To monitor annually trends in waterfowl harvest and delineate harvest distribution of waterfowl species and hunter activity in the state of Oklahoma.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV L. Due

TELE 918/683-1031.

005 Canada Geese

1. To establish a resident breeding population of giant Canada geese in two geographical areas of Oklahoma.

[illegible] result in the introduction of wildlife species into suitable habitats to restore

PRNC INV L. Due

TELE 918/683-1031.

006 Hawks/Eagles/Falcons

1. To administer a falconry program, in cooperation with the U.S. Fish & Wildlife Service, that will provide for the proper use and protection of the raptorial resource.
2. To obtain falconry harvest data.
3. To recommend biologically proper falconry hunting regulations.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV L. Due

TELE 918/683-1031.

007 Waterfowl

1. To determine the feasibility of developing wetland/waterfowl management areas in Oklahoma and formulate developmental and operational plans for the selected sites.

MNGT IMP Information from this project will be used to overcome, or moderate biological limiting factors that affect the growth or well-being of wildlife populations.

PRNC INV L. Due

TELE 918/683-1031.

008 Waterfowl, Cranes

1. Determine fall and winter population densities, species composition, migration trends and population distribution of waterfowl, sandhill cranes and bald eagles in Oklahoma.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV L. Due

TELE 918/683-1031.

009 Cervids, Turkey

1. Mor tor big game depredation in Oklahoma.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

Oklahoma

PRNC INV Rex Umber

TELE 405/521-2739.

010 Pronghorn

1. Monitor antelope populations in Oklahoma.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop populations and habitat management practices.

PRNC INV Rod Smith

TELE 405/521-2739.

011 Whitetail Deer, Elk, Turkey

1. Provide technical assistance on forest-wildlife relationships and habitat management to Department personnel and other agencies in Oklahoma.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV R.Thackston

TELE 405/521-2739.

012 Whitetail Deer

1. Establish baseline data on diseases and parasites of white-tailed deer in Oklahoma.
2. Determine statewide distribution of deer parasites in Oklahoma.
3. Identify health problems in specific deer herds and recommend solutions to the problems in Oklahoma.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop wildlife and habitat management practices.

PRNC INV Mike Shaw

TELE 405/521-2739.

013 Cervids

1. Hold hearings and publicize proposed big game season regulations for Oklahoma.

MNGT IMP This study will provide information on public use and demand for wildlife and will aid in the determination of programs or actions to meet the demand.

PRNC INV G. Duffy

TELE 405/521-2739.

014 Cervids, Turkey

1. Monitor annual deer, elk and turkey harvest and provide data needed for developing harvest recommendations for Oklahoma.

MNGT IMP This Study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Byron Moser

TELE 405/521-2739.

015 Turkey

1. Determine if huntable populations of eastern wild turkey can be established in historical and unoccupied habitat in Oklahoma.

MNGT IMP This project will result in the introduction of wildlife species into suitable habitats to restore populations.

PRNC INV Ron Masters

TELE 405/521-2739.

016 Whitetail Deer, Turkey

1. To determine productivity and other population parameters necessary for the effective management of eastern wild turkey and white tail deer on private forest lands in southeastern Oklahoma.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV R. Thackston

TELE 918/465-3116.

017 Turkey, Whitetail Deer

1. To assist Oklahoma State University personnal with development and implementation of eastern wild turkey and, whitetail deer cooperative projects.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV R. Thackston

TELE 918/465-3116.

Oklahoma

018 Furbearers

1. Develop recommendations for regulations of fur harvesters and fur dealers in Oklahoma.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Richard Hatcher

TELE 405/521-2739.

019 Furbearers

1. Determine number of furbearers harvested, average pelt price and number of fur harvesters in Oklahoma.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Richard Hatcher

TELE 405/521-2739.

020 Furbearers

1. Determine age and sex composition and average litter size of coyotes, bobcats, grey foxes and raccoons in Oklahoma.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Richard Hatcher

TELE 405/521-2739.

021 Furbearers

1. Compile available data regarding disease, conditions in furbearers and investigate reports of local furbearer disease outbreaks, extent and severity of problem in Oklahoma.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Mike Shaw

TELE 405/377-0418.

022 Furbearers

1. Determine Oklahoma furbearer hunter and trapper harvest effort and out-of-state fur sales.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Richard Hatcher

TELE 405/521-2739.

023 Furbearers

1. Establish statewide distribution and population trend indices of Oklahoma furbearers.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Richard Hatcher

TELE 405/521-2739.

024 Small Game, Furbearers, Turkey

1. Provide technical assistance to land use agencies and planning agencies to encourage better wildlife habitat management and prevent unnecessary loss of habitat in Oklahoma.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Dennis Geary

TELE 405/521-2739.

025 Upland Game

1. Hold public hearings to gain public views of proposed annual hunting season regulations for Oklahoma.

MNGT IMP This study will provide information on public use and demand for wildlife and will aid in the determination of programs or actions to meet the demand.

PRNC INV Greg Duffy

TELE 105/521-2739.

026 Upland Game

1. To determine upland game harvest by species and location for the State of Oklahoma.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV John Skeen

Oklahoma

TELE 405/521-2739.

027 Grouse

1. To monitor annual prairie chicken population trends.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop populations and habitat management practices.

PRNC INV D. Geary

TELE 405/521-2739.

028 Pheasant

1. To monitor pheasant population trends.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Rod Smith

TELE 405/521-2739.

001 Plant Ecology

1. Conduct surveys in historical localities using data banks, herbaria.
2. Identify key populations in field.

MNGT IMP Designated habitat will allow for management of populations.

PRNC INV Curt Soper

TELE 503/228-9561.

002 Big Game, Grouse, Coyote

1. To provide supervision and assistance in planning and design of research activities on Big game, sage grouse and coyote.

MNGT IMP Plan and design research studies to produce results required to fulfill needs for management of wildlife in Oregon.

PRNC INV Larry Bright

TELE 503/229-5453.

003 Elk

1. To determine elk habitat preference by monitoring elk use and habitat.
2. To map and quantify elk habitat from ground Landsat satellite methods.
3. To relate findings to effects of forest logging and road construction to elk movements and habitat use.

MNGT IMP provide information for land managers to use in developing appropriate strategies for managing elk habitat for the optimum benefits to elk and habitat components.

PRNC INV Don Leckenby

TELE 503/963-7122.

004 Elk

1. To determine Bull Elk movements during fall breeding season and winter.
2. To determine cause of disappearance (migration or mortality) of young Bull Elk, 9 to 21 months of age.
3. To determine the observability factor of Bull Elk during herd composition counts in February and March.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing Rocky Mountain Elk in the Snake River Management Unit of Northeastern Oregon.

PRNC INV Victor Coggins

TELE 503/426-3279.

005 Elk

Oregon

1. To develop a procedure for predictiong levels of competition and animal-unit forage equivalencies between Elk and Cattle.

MNGT IMP Provide information for land managers to use in developing appropriate levels of forage utilization by livestock on Elk habitat in Eastern Oregon.

PRNC INV Don Leckenby

TELE 503/426-3279.

006 Elk

1. To provide an inventory and maps of timber stand condition and elk habitats.
2. To explore new techniques of mapping and evaluating wildlife habitats.

MNGT IMP provide information for land managers to use in developing appropriate resource management strategies for proper utilization and management of resource components of Roosevelt elk habitat in Western Oregon.

PRNC INV Bud Adams

TELE 503/229-5104.

007 Elk, Bobcat, Black Bear, Otter

1. To provide laboratory services and telemetry coordination to department wildlife management and research programs funded under PR.

MNGT IMP provide information for management to use in developing strategies for managing wildlife, primarily big game, in Oregon.

PRNC INV Chuck Trainer.

008 Grouse

1. To determine reasons for the declining productivity rate of sage grouse.
2. To develop a management plan.

MNGT IMP Provide information for management to use in developing appropriate management strategies for managing sage grouse in Southeast Oregon.

PRNC INV M.J. Willis

TELE 503/573-6553.

009 Elk

1. To determine herd ranges and movements of Northeastern Oregon Elk herds.

MNGT IMP provide information for management to use in developing appropriate strategies for managing individual elk

PRNC INV Leonard Erickson

TELE 503/963-7122.

010 Coyote

1. To determine relationships between coyotes and pronghorn, sage gouse, and jackrabbits and their habitats in SE Oregon.

MNGT IMP provide information for the purpose of developing appropriate management strategies to manage for predation on wildlife, specific mule deer, antelope and sage grouse, in Southeastern Oregon.

PRNC INV M. J. Willis

TELE 503/573-6553.

Puerto Rico

001 Blackbirds/Starlings

1. Evaluate nest predation and parasitism of shiney cowbird on yellow-shouldered blackbird.
2. Monitor reproduction success of yellow-shouldered blackbird.

MNGT IMP This project will provide information on limiting factors of this endangered species to develop population and habitat management practices.

PRNC INV Jose Vavaldi

TELE 809/723-0868.

002 Parrots, Columbiforms

1. Determine the quantity of food available throughout the year for Puerto Rican Parrot and Plain Pigeon on Rio Abajo.
2. Record climatic regime, especially rainfall on Rio Abajo.
3. Collect voucher specimens and establish a reference collection.

PRNC INV Migdalia Alvarez.

003 Columbiforms

1. Determine harvest efforts per hunting season for the Zenaida dove and Red-necked pigeon.

MNGT IMP This study will provide information on public use and demand for wildlife and will aid in the determination of actions to meet the demand.

PRNC INV Pedro R. Ortiz.

004 Columbiforms

1. Determine the breeding season of the Zenaida Dove and the Red-necked Pigeon.

MNGT IMP This study will provide information on the abundance of wildlife populations and to develop population management practices.

PRNC INV Pedro R. Ortiz.

005 Columbiforms

1. Determine the present status and population trends of Zenaida Dove and Red-necked Pigeon.

PRNC INV Pedro R. Ortiz.

Rhode Island

001 Hawks/Eagles/Falcons

1. To conduct winter survey and habitat monitoring of the bald eagle and peregrine falcon.

PRNC INV James Chadwick

TELE 401/789-3094.

002 Endangered Birds

1. Determine the status of selected bird species which have declining populations.

PRNC INV James Chadwick

TELE 401/789-3094.

003 Mourning Dove, Woodcock, Herons/Bitterns

1. To determine presence, numbers and status of webless migratory birds in Rhode Island.

PRNC INV Jim Myers

TELE 401/789-0281.

004 Furbearers

1. To determine economic, recreational, and biological status of furbearers in Rhode Island.

PRNC INV Lori Suprock

TELE 401/789-0281.

005 Whitetail Deer, Turkey

1. To monitor the status of white-tailed deer in Rhode Island.

PRNC INV Jim Myers

TELE 401/789-0281.

006 Waterfowl

1. To determine pre-season and mid-winter waterfowl numbers and distribution.
2. To monitor the status of Canada Geese in Rhode Island.
3. To determine hunter participation, harvest and species composition.

PRNC INV Charles Allin

TELE 401/789-0281.

Rhode Island

007 Nonspecies Oriented

1. To participate in informational exchanges workshops, seminars and conferences.

MNGT IMP Will assist personnel in keeping abreast of latest information and research.

PRNC INV Jim Myers

TELE 401/789-0281.

008 Habitats

1. To develop wildlife habitat management plans.

MNGT IMP Will assist in better overall resource management.

PRNC INV Mike Lapisky

TELE 401/789-0281.

009 Mammals

1. To determine the level of infestation, geographic and host distribution of ticks on mammals in Rhode Island.
2. To establish their role as vectors of enzootic diseases in these mammals.

PRNC INV Charles Allin

TELE 401/789-0281.

010 Game Species

1. To conduct surveys relating to the State's wildlife resource and its associated recreation.

PRNC INV Charles Allin

TELE 401/789-0281.

011 Waterfowl

1. To band waterfowl in Eastern Canada.

MNGT IMP Representative banding of waterfowl in pre-season concentration areas is required in order to obtain data needed on mortality, productivity, hunter pressure, effect of regulations, and general information on migration and distribution of kill.

PRNC INV Jim Meyers

TELE 401-789-0281.

Rhode Island

012 Waterfowl

1. To band waterfowl in Eastern Canada.

MNGT IMP Representative banding of waterfowl in pre-season concentration areas is required in order to obtain data needed on mortality, productivity, hunter pressure, effect of regulations, and general information on migration and distribution of kill.

PRNC INV Jim Myers

TELE 401/789-0281.

South Carolina

001 Hawks/Eagles/Falcons

1. To determine bald eagle nesting activity and productivity in South Carolina.

PRNC INV Tom Murphy.

002 Reptiles

1. To determine the status and population trends of the loggerhead turtle in South Carolina.

PRNC INV Sally Hopkins.

003 Reptiles

1. To determine the affects of beach disturbance by humans on nest site relocation and nesting frequency of loggerhead turtles in South Carolina.

PRNC INV Tom Murphy.

004 All Wildlife

1. To determine the cause of outbreaks of disease in wildlife and to devise controls.

PRNC INV Unknown

005 Turkey

1. To determine the distribution, movement and habitat utilization of gobblers on the Waterhorn Unit.

PRNC INV David P. Baumann.

006 Turkey

1. Monitor relative population dynamics of the wild turkey population established through stocking on the Savannah River Project Rearing Area, determine the availability of birds for restocking other lands throughout South Carolina.
2. Survey areas being considered for stocking and classify each area for habitat quality, quantity and longevity and to develop a priority list of areas to be stocked.
3. Survey areas stocked with wild turkeys to evaluate the success of releases and determine the availability of birds for limited trapping.

PRNC INV David P. Baumann.

007 Turkey

1. To determine nesting activity, site selection and poult survival for turkey hens.

South Carolina

2. To determine habitat preference and utilization by turkey hens with and without broods.

PRNC INV David P. Baumann.

008 Turkey

1. Monitor continuing changes in statewide turkey population trends.

PRNC INV David P. Baumann.

South Dakota

001 Elk

1. To determine daily and seasonal movements and habitat use of elk in the Black Hills.

MNGT IMP Baseline data on habitate preference and seasonal- daily movements will allow managers to adjust forest uses to favor elk populations and thus expand the limited consumptive use in the Black Hills.

PRNC INV Leslie Rice

TELE 605/394-2391.

002 Pheasant

1. To determine if and to what extent pheasants use restoration areas established.
2. To establish detailed criteria for location of future restoration areas.

MNGT IMP Information will allow wildlife managers to establish habitat on restorations areas that is best suited for pheasants.

PRNC INV Ken Solomon

TELE 605/352-8610.

003 Waterfowl

1. To band migratory birds to determine movements, homing tendencies, relative hunting pressure and longivity.
2. To analyze band recoveries to determine harvest patterns and mortality rates.

MNGT IMP Wildlife managers will use the information to help them manage waterfowl that migrate into South Dakota.

PRNC INV Paul Mammenga

TELE 605/622-2391.

004 Canada Geese

1. Reestablish nesting wild Canada geese in selected areas in South Dakota through the release of wild free-flying, gosling and yearlings, progeny of captive breeding stock.

MNGT IMP Hunting opportunities for Canada geese will increase for the number of Canada geese using South Dakota will increase.

PRNC INV Paul Mammenga

TELE 605/622-2391.

005 Whitetail Deer

1. To evaluate the seasonal and daily movements and habitat usage by white-tailed deer.

MNGT IMP Will allow wildlife managers to better manage white-tailed deer populations in eastern South Dakota.

PRNC INV Dr. Kenneth Higgins

TELE 605/688-6121.

006 Marten

1. To determine restoration success and population status of pine marten in the Black Hills.

MNGT IMP Reestablishment of this species would increase trapping opportunities, provide additional economic returns to local trappers, and provide esthetic values to nonconsumptive users.

PRNC INV Larry Fredrickson

TELE 605/773-3387.

007 Mountain Goat

1. To determine census technique, movement, preferred habitat and population dynamics of mountain goat in the Black Hills.

MNGT IMP Information is needed so wildlife managers can establish a sustainable population with maximum consumptive and non-consumptive use.

PRNC INV Ted Benzon

TELE 605/394-2391.

008 Domestic Cattle

1. To evaluate the effectiveness of using cattle to control cattails, the response of the plant and animal community, and the nutritional value of cattails.

MNGT IMP If successful it will provide wildlife managers with a new technique for managing cattail marshes.

PRNC INV Don Hubbard

TELE 605/688-6121.

009 All Wildlife

1. To determine the resultant increases that management of woody draws (fencing and tree planting) causes in use by deer, grouse, pheasants, rabbits, songbirds, furbearers, and small mammals.

MNGT IMP Wildlife managers will have information necessary to increase the carrying capacity of woody draws for wildlife.

PRNC INV Larry Frederickson

South Dakota

TELE 605/773-3387.

010 Turkey

1. To increase the range and population of turkeys in eastern South Dakota.

MNGT IMP Through expansion of the turkey range and population the man-days of recreation provided by this highly sought-after species will be greatly increased.

PRNC INV Dr. Lester Flake.

011 Wild Sheep

1. To monitor the effects of the hematocide Ivermectin in relation to lungworm loading, lambing success, and lamb survival in bighorn sheep in Custer State Park, and to compare these data with that collected from the same animals pretreatment.

MNGT IMP Mortalities due to lungworm are keeping the bighorn population far below the carrying capacity of the habitat. If managers can control lungworm they can establish a sustainable population with maximum consumptive and nonconsumptive use.

PRNC INV DVM Hazel Shave.

012 Aquatic Plants

1. To evaluate the forage potential of a representative plant community type of palustrine emergent seasonal wetlands in eastern South Dakota and to evaluate the effect of haying on waterfowl foods.

MNGT IMP If wildlife managers can prove to private landowners that wetlands have an economic value they will then be in a much better position to slow the destruction of these wetlands.

PRNC INV Dan Hubbard

TELE 605/688-6121.

013 Grouse

1. To increase the present range of the greater prairie chicken in South Dakota.

MNGT IMP The range and population of this species is far below historic levels. This work will help to preserve the species and will increase the man-days of recreation that this highly sought-after upland game bird provides.

PRNC INV Larry Fredrickson

TELE 605/773-4195.

014 Hawks/Eagles/Falcons

1. To inventory numbers of raptors nesting in selected counties with special emphasis on the rock outcrops of the north and south Cave Hills, the east and west Short Pines, and Slim Buttes, and the Black Hills
2. To record nest site data including site location, type of cover and exposure.
3. To determine nesting success and population trends by species and area for comparison with future collected data.
4. To create new nesting sites by cleaning unusable debris from existing nests and by constructing artificial nests in selected areas.

MNGT IMP The information will be used to formulate sound raptor management regulations and policies.

PRNC INV Unknown.

015 Bobcat

1. To determine age, sex, reproductive characteristics, and survival and mortality rates of the bobcat population.

MNGT IMP The information will be the basis for management decisions leading to goals of maximum recreational utilization of bobcates without adverse effects on future populations.

PRNC INV Larry Fredrickson

TELE 605/734-5622.

016 Furbearers

1. To determine the number of furbearers harvested and the monetary value of their furs.
2. To determine the number of trappers and, the average number of days afield per hunter.

MNGT IMP The information will be the basis for management decisions leading to goals of maximum recreational utilization of furbearers without adverse effects on future populations.

PRNC INV Ron Fowler

TELE 605/773-3658.

017 Grouse

1. To obtain for sharp-tailed grouse, sage grouse, and greater prairie chickens an index of the abundance of breeding birds, abundance and size of broods, and reproductive success.
2. To obtain for sharp-tailed grouse, sage grouse, and greater prairie chickens the size and distribution of harvest, average season and average daily harvest per hunter, and average number of days afield per hunter.
3. To obtain an index of breeding ruffed grouse in the Black Hills.

MNGT IMP The information will be the basis for management decisions leading to goals of maximum recreational utilization of grouse without adverse effects on future populations.

PRNC INV Barth Crouch and Harvey Haivala

TELE 605/845-3883 and 605/892-3522.

South Dakota

018 Elk

1. To determine the range, population trend and status, and general body condition of elk in the Black Hills.

MNGT IMP The information will be the basis for management decisions leading to goals of maximum recreational utilization of elk in the Black Hills without adverse effects on future populations.

PRNC INV Ted Schenck

TELE 605/394-2391.

019 Game Species

1. To establish regulations on trapping and hunting of game and furbearer species.

MNGT IMP Establish regulations to be followed by the public in hunting and trapping.

PRNC INV Ron Fowler

TELE 773-3658.

020 Partridge

1. To determine for gray partridge reproductive success, peak hatch period, fall age and sex ratios, and relative abundance.
2. To determine for gray partridge the number of hunters, harvest, average season and average daily harvest per hunter, and average number of days afield per hunter.

MNGT IMP The information will be the basis for management decisions leading to goals of maximum recreational utilization of partridge without adverse effects on future populations.

PRNC INV Barth Couch and Harvey Pietz

TELE 605/845-3883 and 605/773-4506.

021 Quail

1. To determine for bobwhite quail the abundance of breeding birds and age and sex ratios.
2. To determine for bobwhite quail the number of hunters, harvest, average season and average daily harvest per hunter, and average days afield per hunter.

MNGT IMP The information will be the basis for management decisions leading to goals of maximum recreational utilization of quail without adverse effects on future populations.

PRNC INV Spencer Vaa and Harvey Pietz

TELE 605/688-6121 and 605/773-4506.

022 Waterfowl

1. To conduct aerial fall waterfowl surveys of the Missouri River area.
2. To obtain for ducks and geese the number of hunters statewide, harvest by species average season harvest and average daily harvest per hunter, and average number of days afield per hunter.
3. To monitor status and production of the giant Canada goose breeding population in South Dakota.
4. To determine population harvest trend, and age ratio of individual Canada goose populations using the Missouri River during fall migration; and to determine effectiveness of steel shot regulations and assess possible loss of waterfowl to lead poisoning along the Missouri River.

MNGT IMP The information will be the basis for management decisions leading to goals of maximum recreational utilization of ducks and geese without adverse effects on future populations.

PRNC INV Barth Couch

TELE 605/845-3883.

023 Mule Deer, Whitetail Deer

1. To determine deer population trends, age structure, hunter success, distribution of harvest by area and time, species composition of harvest harvest, and age and sex ratios of harvested deer.
2. To determine fawn mortality rates for the Black Hills, Prairie, and East River deer populations.

MNGT IMP The information will be the basis for management decisions leading to goals of maximum recreational utilization of deer without adverse effects on future populations.

PRNC INV Ted Schenck

TELE 605/394-2391.

024 Turkey

1. To obtain for turkeys population trends, annual production, distribution and abundance and the size, composition and distribution of winter flocks.
2. To determine the sex composition and distribution of the turkey harvest, and the average days afield per hunter.
3. To determine the extent of turkey movements and to identify home ranges and important habitat.

MNGT IMP The information will be the basis for management decisions leading to goals of maximum recreational utilization of turkeys without adverse effects on future populations.

PRNC INV Theron Schenck

TELE 605/394-2391.

025 Pheasant

1. To determine pheasant reproductive success, population trends and densities, population composition, winter sex ratios, mortality, and the effects of weather and land-use changes on pheasant reproduction.
2. To determine the number of pheasant hunters, harvest, average season harvest and average daily harvest per hunter, and average number of days afield per hunter.

MNGT IMP Annual information of population trends and characteristics is necessary as basis for management decisions leading to goals of maximum recreational utilization of pheasants without adverse effects on future populations. This information will be used to also provide the public with a factual background to judge the effects of various hunting seasons, habitat changes and land use on future pheasant populations and thereby enable the state to maintain or increase the population and better utilize the resource.

South Dakota

PRNC INV William Foss and Harvey Pietz

TELE 605/886-4769 and 605/773-4506.

026 Pronghorn

1. To determine the adult sex ratio, annual reproduction, and total antelope population within each county or management unit.
2. To determine the composition of the antelope harvest, total harvest, man-days of recreation, and the utilization of public and private land during the antelope season.

MNGT IMP The information will be the basis for management decisions leading to goals of maximum recreational utilization of antelope without adverse effects on future populations.

PRNC INV Michael Muck

TELE 605/859-2456.

Texas

001 Mountain Lion, Bobcat, Coyote

1. Determine sex, age and body measurements, reproductive status and foods of lions, coyotes and bobcats in the Trans-Pecos of Texas.
2. Record spatial and chronological data to establish reference for intra and inter specific comparisons of distribution, body condition and potential prey use.
3. Assess species status (mountain lions, coyote and bobcat) and develop regulations for these species in Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV W. C. Brownlee

TELE 512/479-4973.

002 Cranes

1. Monitor effects of the waterfowl season on the movements of wintering Whooping Crane in Texas coastal habitat.
2. Evaluate impacts of human activity on movements of wintering Whooping Cranes in Texas coastal habitat.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV W. C. Brownlee

TELE 512/479-4973.

003 Pelicans/Cormorants

1. Determine movements of juvenile White Pelicans in Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV W. C. Brownlee

TELE 512/479-4973.

004 Waterfowl

1. Determine population trends of Colonial Waterbird species in Texas.
2. Develop management practices benefitting sensitive species of waterbirds in Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV W. C. Brownlee

TELE 512/479-4973.

Texas

005 Bobcat

1. Determine the distribution and status of the bobcat in Texas.
2. Determine effects of the annual fur harvest on the bobcat population in Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV W. C. Brownlee

TELE 512/479-4973.

006 Cats

1. Determine the status of endangered felines of Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV W. C. Brownlee

TELE 512/479-4973.

007 Nongame Wildlife

1. Evaluate the status of wild birds and mammals.
2. Recommend additions and deletions of species to the official list of endangered or protected nongame avian and mammalian species in Texas.
3. Submit proposed new regulations or additions or deletions from these Texas endangered species list for evaluation through public hearings.
4. Prepare an endangered /protected nongame species bulletin for those species in Texas.
5. Disseminate protected nongame and endangered avian and mammalian species status information for those Texas species.
6. Respond to problems threatening the immediate existence of nongamespecies in Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV W. C. Brownlee

TELE 512/479-4973.

008 Hawks/Eagles/Falcons

1. Determine reproductive success of Bald Eagles in Texas.
2. Verify existence of previously unreported Bald Eagles' nests.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV W. C. Brownlee

TELE 512/479-4973.

009 Nongame Birds

1. Ascertain the distribution of nesting areas use by interior least terns in Texas.
2. Analyze morphometric and biochemical data for indictions of difference between subspecies of least terns in Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV W.C. Brownlee

TELE 512/479-4973.

010 Tree Ducks

1. Determine factors limiting the resident wood duck population in Texas.
2. Develop techniques for improving wood duck production and habitat conditions.

MNGT IMP This project will provide information on the abundance, condition, or factors that affect wildlife populations so as to develop wildlife population and habitat management practices.

PRNC INV W. C. Brownlee

TELE 512/479-4973.

011 Waterfowl

1. Locate and categorize existing and potential waterfowl habitat in private ownerships, land controlled by other government agencies or on lands subject to purchase or lease by government agencies in Texas.

MNGT IMP This project will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV W. C. Brownlee

TELE 512/479-4973.

012 Waterfowl

1. Monitor seasonal losses of waterfowl in Texas excluding those taken in the annual harvest and to apply remedial treatment.

MNGT IMP This project will provide information to be used to overcome or moderate biological limiting factors that affect the growth or well-being of wildlife populations.

PRNC INV W. C. Brownlee

Texas

TELE 512/479-4973.

013 Waterfowl

1. Develop waterfowl harvest recommendations for Texas.

MNGT IMP This project will provide information on the abundance, condition, and factors which affect wildlife populations.

PRNC INV W. C. Brownlee

TELE 512/479-4973.

014 Waterfowl

1. Measure effects of adding littoral zones to portions of modified playa lakes on duck production and wintering waterfowl in the Texas Panhandle.

MNGT IMP This project will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV W. C. Brownlee

TELE 512/497-4973.

015 Tree Ducks

1. To increase whistling duck production.
2. To improve breeding habitat.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop wildlife populations and habitat management practices.

PRNC INV W.C. Brownlee

TELE 512/479-4973.

016 Waterfowl

1. To inventory and describe wetland habitats resulting from beaver impoundment on the Engelin WMA.
2. To evaluate the management techniques of drawdown and planting as a tool for the increasing waterfowl utilization of beaverponds on Engeling WMA.

MNGT IMP This project will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV W. L. Brownlee

TELE 512/479-4973.

O17 Waterfowl

1. To identify wetland habitat management problems and develop research proposals designed to overcome the problems.
2. To develop long-term operational management plans for wetland habitats.

MNGT IMP This project will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV W. L. Brownlee

TELE 512/479-4973.

O18 Quail

1. Determine if winter disc plowing of strips in native pasture land increases quail hunter success in the Rio Grande Plains and Rolling Plains of Texas.

PRNC INV A.J. Springs

TELE 512/479-4972.

O19 Quail

1. Determine distribution, densities and habitat preference of Mearn's quail in Texas.

PRNC INV A.J. Springs

TELE 512/479-4972.

O20 Turkey

1. Determine dispersal, mortality and reproductive success of transplanted wild Rio Grande turkey in Texas.

PRNC INV A.J. Springs

TELE 512/479-4972.

O21 Grouse

1. To evaluate the summer release of Lesser Prairie Chicken with broods as a restoration technique in the Rolling Plains of Texas.

PRNC INV A.L. Springs

TELE 512/479-4972.

Texas

022 Upland Game

1. Determine annual population trends of upland game populations in Texas including turkey, prairie chicken, pheasant, quail, rabbit, squirrel and chachalaca.
2. Prepare and recommend annual harvest regulations for upland game of Texas.
3. Determine annual harvest estimates of Texas upland game.

PRNC INV A.J. Springs

TELE 512/479-4972.

023 Whitetail Deer

1. Determine the extent of mortality and dispersal of adult white-tailed deer in the Coastal Prairies of Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C. K. Winkler

TELE 512/479-4972.

024 Whitetail Deer

1. Determine effects of early weaning dates on the growth and development of white-tailed deer in Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C. K. Winkler

TELE 512/479-4978.

025 Whitetail Deer

1. Determine the effects of geographic relocation on the breeding cycles in white-tailed deer of Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C. K. Winkler

TELE 512/479-4978.

026 Whitetail Deer

1. Assess aspects of burning as a brush control technique for regrowth of ashe juniper in Edwards Plateau of Texas and its effect on deer habitat on a range in a deferred rotational grazing system by cattle only at a light to moderate stocking rate.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV C. K. Winkler

TELE 512/479-4978.

027 Whitetail Deer

1. Determine the influence of genetics on antler quality and body size of white-tailed deer under native range conditions of Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C. K. Winkler

TELE 512/479-4978.

028 Peccaries

1. Determine effect of different levels of hunting pressure on population dynamics of javelina in south Texas.
2. Determine social structure and activity patterns within javelina herds in south Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C. K. Winkler

TELE 512/479-4978.

029 Mule Deer

1. Measure effects of 240 man-days of annual effort of mountian lion and coyote population reduction on the desert mule deer population in the Black Gap Wildlife Management Area of West Texas.
2. Determine average 5-year and longer term cost per predator removed (species specific) in relation to value of unit gains (or losses) in the desert mule deer population on the Black Gap Wildlife Management Area, Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV G. K. Winkler

TELE 512/479-4978.

030 Mule Deer

Texas

1. Determine the age composition, average field dressed weight and antler development of mule deer harvested in Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C. K. Winkler

TELE 512/479-4978.

031 Elk

1. Establish elk harvest recommendations for Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C. K. Winkler

TELE 512/479-4978.

032 Wild Sheep

1. Develop aoudad sheep harvest recommendations for Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C. K. Winkler

TELE 512/479-4978.

033 Peccaries

1. Develop javelina harvest recommendations for Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C. K. Winkler

TELE 512/479-4978.

034 Cervids

1. Measure the influence of fallow deer, and blackbuck antelope on white-tailed deer survival and reproduction in 96-acre enclosures in the Edwards Plateau habitat of Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C. K. Winkler

TELE 512/479-4978.

O35 Black Bear

1. Determine the distribution and population trends of black bear in Texas.
2. Determine the distribution and quality of black bear habitat in Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C. K. Winkler

TELE 512/479-4978.

O36 Whitetail Deer

1. Determine the age and weight of both sexes and antler characteristics of buck white-tailed deer harvested in Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C. K. Winkler

TELE 512/479-4978.

O37 Wild Sheep

1. Determine the status of bighorn sheep in Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C. K. Winkler

TELE 512/479-4978.

O38 Pronghorn

1. Formulate antelope harvest recommendations for Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C. K. Winkler

TELE 512/479-4978.

Texas

039 Whitetail Deer

1. Determine the statewide harvest, hunter numbers, hunting pressure and effects of regulations on white-tailed deer population in Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C. K. Winkler

TELE 512/479-4978.

040 Whitetail Deer

1. To formulate white tailed deer harvest regulations and harvest quotas in Texas.

MNGT IMP This study will prov' e information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C. K. Winkler

TELE 512/479-4978.

041 Whitetail Deer

1. Determine annual population levels, distribution and herd composition of white-tailed deer in Texas.
2. Formulate white-tailed deer harvest regulations and recommend them to the public and Commission of Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C. K. Winkler

TELE 512/479-4978.

042 Mule Deer

1. Formulate mule deer harvest regulations for Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C. K. Winkler

TELE 512/479-4978.

043 Whitetail Deer

1. Measure effectiveness of various electric fencing designs in controlling depredation of cropland by white-tailed deer in east Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV Charles Winkler

TELE 512/479-4800.

044 Whitetail Deer

1. To investigate the influence of management on reproductive rates of white-tailed deer on the Chaparral Wildlife Management Area.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C.K. Winkler

TELE 512/479-4978.

045 Mule Deer

1. To determine the reproductive success of desert mule deer under field conditions.
2. To determine the effect of nutrition and disease on reproductive performance.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV G.K. Winkler

TELE 512/479-4978.

046 Whitetail Deer

1. To establish standard profiles for diaminopimetic acid (DAPA) from major white-tailed deer habitats in Texas and determine the nutritional status of deer herds by comparison to established profiles.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C.K. Winkler

TELE 512/479-4978.

047 Mule Deer

1. To determine mule deer antler development under field conditions in the Trans-Pecos region of Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

Texas

PRNC INV C.K. Winkler

TELE 512/479-4978.

048 Whitetail Deer

1. To determine the effects of hunting deer with dogs on white-tailed deer population and harvest.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C.K. Winkler

TELE 512/479-4978.

049 Mule Deer

1. To live trap, mark for identification, and release 50 mule deer fawns and 50 yearling (1.5 year age class) mule deer.
2. To collect a minimum of three deer from each cohort and remove the jaw- bones for recording wear patterns and eruption of the individual molars and premolars.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and hbitat management practices.

PRNC INV C.K. Winkler

TELE 512/479-4978.

050 Whitetail Deer

1. To compare spotlight, fixed-wing aircraft and helicopter census methods of assessing population levels of white-tailed deer in the South Texas Plains.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C.K. Winkler

TELE 512/479-4978.

051 Mule Deer

1. To determine the chronology and geographical extent of the development and decline of the desert mule deer on the Black Gap Wildlife Management Area.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C.K. Winkler

TELE 512/479-4978.

052 Whitetail Deer

1. To determine heritability estimates for antler characteristics and body weight in white-tailed deer.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C.K. Winkler

TELE 512/479-4978.

053 Whitetail Deer

1. To investigate the differences and/or change in the level of nutrition of the white-tailed deer under various management practices on the Chaparral WMA.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV C.K. Winkler

TELE 512/479-4978.

054 All Wildlife

1. Determine Environmental impacts of projects proposed by local state or federal agencies and private enterprise on wild birds and wild mammals or their habitats, and to provide technical advice on wildlife enviroments to such entities.

PRNC INV Leland E. Roberts

TELE 512/479-4800.

055 White Wing Dove

1. To determine the discreteness and population dynamics of the various segments of white-winged doves in Tamaulipas, Mexico and Texas by analyzing data from previous banding programs.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV W.L. Brownlee

TELE 512/479-4973.

Texas

056 Mourning Dove

1. To measure nesting chronology of mourning doves and other avian species in each of the ten ecological regions of Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and management practices.

PRNC INV W.C. Brownlee

TELE 512/479-4973.

057 Migratory Birds

1. To monitor seasonal losses of migratory shore and upland game bird losses in Texas.

MNGT IMP This study will povide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV W.C. Brownlee

TELE 512/479-4973.

058 Mourning Dove

1. To determine relative density and distribution of mourning doves in Texas during the breeding season.
2. To develop harvest regulations and management programs for mourning doves in Texas, the Central Management Unit, and appropriate foreign countries.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV W.L. Brownlee

TELE 512/479-4973.

059 Cranes

1. To determine annual trends in the sandhill crane wintering population in Texas.
2. To assist with the Midcontinent Sandhill crane spring migration survey.
3. To issue federal sandhill crane permits which are used in conducting the nationwide sandhill crane harvest survey.
4. To monitor sandhill crane racial distribution in South Texas.
5. To develop harvest regulations and management programs for sandhill cranes in Texas, the Central Management Unit and appropriate foreign countries.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV W.C. Brownlee

TELE 512/479-4973.

Texas

060 White Wing Dove

1. To determine annual trends in the whitewing breeding population in South Texas and Northeastern Mexico.
2. To determine annual production of whitewings in the Rio Grande Valley of Texas and Northeastern Mexico.
3. To determine annual trends in whitewing fall populations in the Rio Grande Valley of Texas and Northeastern Mexico.
4. To determine trends in whitewing hunting pressure, harvest, and crip- pling loss in Texas.
5. To develop harvest regulations and management programs for white-winged doves in Texas, the Central Management Unit and appropriate foreign countries.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV W.C. Brownlee

TELE 512/479-4973.

061 Furbearers

1. Formulate furbearing animal regulation recommendations for Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV B.C. Thompson

TELE 512/479-4972.

062 Furbearers

1. Determine and evaluate the animal fur harvest in Texas.

MNGT IMP This project will provide information on public use and demand for wildlife and will aid in the determination of programs or actions to meet the demand.

PRNC INV B.C. Thompson

TELE 512/479-4972.

063 Furbearers

1. Develop a bibliography for Texas fur bearing animals.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV B.C. Thompson

TELE 512/479-4972.

Texas

064 Furbearers

1. Disseminate information from results of fur bearing animal research in Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV B.C. Thompson

TELE 512/479-4972.

065 Fox

1. Determine distribution and relative abundance of Red fox populations in Texas.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop populations and habitat management practices.

PRNC INV B.C. Thompson

TELE 512/479-4972.

066 Furbearers

1. Summarize pelt primeness and quality of Texas harvested furbearers.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat management practices.

PRNC INV B.C. Thompson

TELE 512/479-4972.

Utah

001 Endangered Mammals

1. Determine the population, distribution,, and viability of Utah prairie dog colonies.
2. Select and improve transplant sites, transplant Utah prairie dogs, and monitor and protect transplant sites.

MNGT IMP Will help Uyah and the U.S. Fish and Wildlife Service meet objectives established in Blade-footed Ferret Recovery Plan.

PRNC INV Robert Hasenyager

TELE 801/533-9333.

002 Reptiles

1. fo monitor desert tortoise populations and density trends.
2. To collect life history information on the Beaver Dam Slope desert tortoise population such as reproduction, abundance, mortality, and growth.
3. Record general habitat use of desert tortoise and general habitat conditions within their Critical Habitat area.
4. Evaluate Utah's captive release program for desert tortoise.

MNGT IMP Will help Utah and the U.S. Fish and Wildlife Service meet goals established in the draft Desert Tortoise/Beaver Dam Slope Population Recovery Plan.

PRNC INV Mike Coffeen.

003 Woodpeckers

1. To find black-footed ferrets in Utah.
2. To identify potential reintroduction sites.

MNGT IMP Will help Utah and the Fish and Wildlife service meet goals established in the Black-footed Ferret Recovery Plan.

PRNC INV Robert Hasenyager

TELE 801/533-9333.

004 Reptiles

1. To monitor desert tortoise populations and density trends.
2. To collect life history information on the Beaver Dam Slope desert tortoise population such as reproduction, abundance, mortality, and growth.
3. Record general habitat use of desert tortoise and general habitat conditions within their Critical Habitat area.
4. Evaluate Utah's captive release program for desert tortoise.

MNGT IMP Will help Utah and the U.S. Fish and Wildlife Service meet goals established in the draft Desert Tortoise/Beaver Dam Slope Population Recovery Plan.

PRNC INV Mike Coffeen.

Utah

005 Hawks/Eagles/Falcons

1. To reintroduce young peregrine falcons into the wild through "hacking" and to monitor success.

MNGT IMP Will help Utah and the U.S. Fish and Wildlife Service meet established goals of the Rocky Mountain/American Peregrine Falcon Recovery Plan.

PRNC INV Robert Walters

TELE 801/530-9333.

006 Mule Deer, Elk

PRNC INV Dennis Austin

TELE 801/750-1000.

007 Mule Deer, Horses

1. To determine the influence of big game and livestock grazing on the early success of range rehabilitation.

MNGT IMP If the study is successful it will add a tool available to land managers for improving range revegetation techniques.

PRNC INV Dennis Austin

TELE 801/533-9333.

008 Mule Deer, Elk

1. To evaluate and determine methods to assess big game depredation losses to orchards.

MNGT IMP Will provide managers with better techniques for assessing big game depredation losses.

PRNC INV Dennis Austin

TELE 801/750-1000.

009 Mule Deer, Horses, Domestic Cattle

1. To supervise, coordinate, and provide technical guidance to researchers doing studies under this project.

MNGT IMP Mangers will be provided with (1) information regarding needs they identify, and (2) better quality information.

PRNC INV Dr. Phil Urness

TELE 801/750-2538.

010 Mule Deer

1. To define the level of confidence with which diet composition data collected using tame deer can be applied to wild deer utilizing the same area.

MNGT IMP Will help determine the reliability of research studies using tame deer to simulate wild deer.

PRNC INV Dr. Phil Urness

TELE 801/750-2538.

011 Mule Deer

1. To determine the effects of goat grazing on plant community composition and browse production in oakbrush-dominated communities on mule deer winter range.

MNGT IMP Study will provide managers with information pertinent to decision making regarding the use of livestock grazing on deer winter range sites dominated by Gambel oaks.

PRNC INV Dr. Phil Urness

TELE 801/750-2538.

012 Elk, Mule Deer

1. To evaluate and determine methods to accurately, but practically, assess big game depredation losses of growing alfalfa.

MNGT IMP Will provide manages with better techniques for assessing big game depredation losses.

PRNC INV Dennis Austin

TELE 801/750-1000.

013 Waterfowl

1. To determine waterfowl population trends.
2. To determine mortality and migration data.

MNGT IMP Information will be used to formulate management recommendations and harvest regulations.

PRNC INV Tom Aldrich

TELE 801/533-9333.

Utah

014 Waterfowl

1. To determine waterfowl harvests and hunter participation.

MNGT IMP Information will be used by managers to formulate management plans, recommendations, and regulations.

PRNC INV Tom Aldrich

TELE 801/533-9333.

015 Waterfowl

1. To determine breeding populations of waterfowl and estimate waterfowl production.
2. To estimate utilization of waterfowl habitat throughout the year by species of waterfowl and other associated marsh birds.

MNGT IMP Information will be used by managers to make management recommendations to the Pacific Flyway Council.

PRNC INV Tom Aldrich

TELE 801/533-9333.

016 Waterfowl

1. To determine species composition of waterfowl shot by hunters.

MNGT IMP Information will be used to formulate management recommendations and harvest regulations.

PRNC INV Tom Aldrich

TELE 801/533-9333.

017 Waterfowl

1. To determine and monitor ingestion of, and exposure to, lead shot by key species of waterfowl in the key waterfowl harvest counties.
2. To differentiate exposure and ingestion rates by county, species, and season chronology.

MNGT IMP Information will be the basis for decisions on when to convert to the mandatory use of non-toxic shot in big harvest areas

PRNC INV Tom Aldrich

TELE 801/533-9333.

018 Mule Deer

1. Determine vegetative types, composition, ownership, production, age and class form of vegetation on big game range.

MNGT IMP Will provide managers with information for managing big game winter ranges.

PRNC INV Vacant.

019 Mule Deer

1. Determine vegetative types, composition, ownership, production, age and class form of vegetation on big game range.

MNGT IMP Range trend data will provide wildlife managers with the information necessary for making critical decisions to sustain desired mule deer populations on each deer management unit.

PRNC INV Bruce Giunta

TELE 801/969-4490.

020 Big Game

1. To determine annual harvest, sex and age composition of populations, population trends, and movements of mule, deer, elk, antelope, bison, moose, desert bighorn sheep, Rocky Mountain bighorn sheep and mountain goats.
2. To determine condition and utilization of big game ranges.
3. To prepare species management plans for each big game management unit.

MNGT IMP Information obtained is used by wildlife managers as the basis for managing the state's big game herds. Annual harvest regulations are developed using the information.

PRNC INV Grant Jense

TELE 801/533-9333.

021 Mule Deer

1. Evaluate summer and winter range used by the study herd and determine forage species utilized.
2. To determine pregnancy rates, live-birth rates and doe/fawn ratios.
3. To evaluate mortality factors and rates for fawns.
4. To determine winter and summer range for different herd segments, migration routes and locations, and time of partutition.

MNGT IMP Wildlife managers will use this information to increase the number of harvestable deer available to hunters.

PRNC INV Don Beale

TELE 301/586-4340.

022 Black Bear, Mountain Lion

Utah

1. To determine the annual cougar and black bear harvest, including sex and age composition of cougar and black bear in Utah.

MNGT IMP Information obtained is used by wildlife managers as the basis for managing the state's black bear and mountain lion population. Annual harvest regulations are developed using the information.

PRNC INV Jay Roberson

TELE 801/533-9333.

023 Upland Game

1. To conduct annual inventories.
2. To determine annual harvest.
3. To monitor population trends, distribution, movements, and mortality.
4. To provide technical assistance for habitat improvement.
5. To determine habitat trends for pheasants, mourning doves, cottontail rabbits, chubar partridge, blue grouse, ruffed grouse, sage grouse, Gambels quail, California quail, Hungarian partridge, snowshoe hares, band-tailed pigeons, turkeys, sharp-tailed grouse, ptarmigan and sandhill cranes.

MNGT IMP Information obtained is used by wildlife managers as the basis for managing the state's upland game. Annual harvest regulations are developed using the information

PRNC INV Jay Roberson

TELE 801-533-9333.

024 Vegetation

1. To determine the effects sod-forming grasses and site characteristics have on controlling regrowth of Gambel Oak.

MNGT IMP This study will improve the wildlife managers ability to effectively manage Gambel Oak habitats for wildlife.

PRNC INV Jim Davis

TELE 801/224-5836.

025 Vegetation

1. Determine germination characteristics and longevity of selected range plants.
2. Determine seed treatments that could enhance germination.

MNGT IMP This study will improve the wildlife managers ability to make successful seed plantings on game ranges.

PRNC INV Kent Jorgensen

TELE 801/283-4452, Jim Davis 801/224-5836.

026 Shrubs

1. Determine planting and cultural techniques for shrub and herb establishment.
2. Assist in the development and testing of efficient and economical planting equipment.

MNGT IMP This study will improve the wildlife managers ability to make successful seed plantings on game ranges.

PRNC INV Richard Stevens

TELE 801/283-4441.

027 Vegetation

1. Maintain and produce seed from established seed plantings.
2. Develop and test methods to maximize seed production, harvest methods and equipment, and cost effectiveness of techniques.

MNGT IMP Study will expand the amount and quality of plant material available to land managers for improving game ranges.

PRNC INV Kent Jorgensen

TELE 801/283-4452.

028 Elk, Mule Deer

1. Selection of plant species which have potential for establishment, growth, survival, reproduction and benefit for wildlife on game ranges in Utah.

MNGT IMP This study will improve the wildlife managers ability to select seeding mixtures that will provide the maximum benefit for wildlife on individual range improvement projects.

PRNC INV Ricahrd Stevens

TELE 801/283-4441.

029 Hare/Rabbit/Pika, Cervids, Domestic Cattle

1. To determine the relative effects of deer, livestock and rabbits on plant succession and ground changes after Juniper-Pinyon eradication.

MNGT IMP This study will improve the wildlife managers ability to successfully reseed chained Juniper - Pinyon areas for the benefit of wildlife.

PRNC INV Jim Davis

TELE 801/224-5836.

030 Vegetation

Utah

1. To determine the effect that grazing and site conditions have on, successional plant changes and forage production of Juniper-Pinyon areas that were chained and seeded.
2. To test the response of various seed mixtures on chained and seeded Pinyon-Juniper areas.

MNGT IMP This study will improve the wildlife managers ability reseed chained Juniper - Pinyon areas for the benefit of wildlife.

PRNC INV Richard Stevens

TELE 801/283-4441, Jim Davis

031 Cervids, Shrubs

1. Identification and selection of superior shrubs that possess needed characteristics for the enhancement of game habitat.

MNGT IMP Study will expand the amount and quality of plant material available to land managers for improving game ranges.

PRNC INV Richard Stevens

TELE 801/283-4441, Jim Davis

032 Shrubs, Hardwoods

1. Accumulate available information and data on seeding burned areas in mountain brush and aspen in Utah.
2. Carry out experimental seedings on burns and evaluate response of various seed mixtures and procedures.

MNGT IMP This study will improve the wildlife managers ability to effectively manage mountain brush and aspen habitat types for wildlife.

PRNC INV Richard Stevens

TELE 801/283-4441.

Vermont

001 Waterfowl

1. To coordinate Vermonts' waterfowl project with cooperative research and management programs of the Atlantic Flyway.

MNGT IMP This project will provide information to assist the public, resource managers, and others in interpreting understanding and utilizing research results.

PRNC INV Tom Myers

TELE 802/759-2397.

002 Canada Geese

1. To investigate those ecological requirements and behavioral aspects of Canada Geese.

MNGT IMP This project will be used to overcome, or moderate biological limiting factors that affect the growth or well-being of goose populations.

PRNC INV Tom Myers

TELE 802/759-2397.

003 Waterfowl

1. To determine annual changes in waterfowl population levels and mortality.

MNGT IMP This project will provide information on the abundance, condition or factors that affect waterfowl populations and to develop population and habitat management practices.

PRNC INV Tom Myers

TELE 802/759-2397.

004 Waterfowl

1. To determine the effects of controlled waterfowl hunting on state management areas.

MNGT IMP This project will be used to assess management practices to determine theirr effectiveness toward accomplishment of management goals.

PRNC INV Tom Myers

TELE 802/759-2397.

005 Whitetail Deer

1. To monitor physical condition and population dynamics of deer.

MNGT IMP This project will provide information on the abundance, condition or factors that affect deer populations and to develop population and habitat management practices.

Vermont

PRNC INV Ron Regan

TELE 802/832-2454.

006 Whitetail Deer

1. To determine the quantity and quality of winter deer range in Vermont.

MNGT IMP This project will result in the protection, development, or improvement of deer habitat to sustain or enhance those populations.

PRNC INV Ron Regan

TELE 802/832-2454.

007 Whitetail Deer

1. To inform appropriate public officials of project results.

MNGT IMP This project will provide information on public use and demand for deer and will aid in the determination of programs or actions to meet the demand.

PRNC INV Ron Regan

TELE 802/832-2454.

008 Moose

1. To determine distribution, population levels, population trends and physical condition of moose.
2. To determine whether or not there are range or other conflicts between moose and deer.
3. To determine a policy statement for moose.

MNGT IMP This project will provide information on the abundance, condition, or factors that affect moose populations and to develop population and habitat management practices.

PRNC INV Charles Willey

TELE 802/832-2454.

009 Whitetai Deer

1. To minimize losses of existing winter deer range from conflicting land uses.

MNGT IMP This project will result in the protection, development or improvement of deer habitat to sustain or enhance those populations.

PRNC INV Ron Regan

TELE 802/832-2454.

Vermont

010 Turkey

1. To keep other agencies and the public informed of project results.

MNGT IMP This project will provide information on public uses and demand for turkey and will aid in the determination of programs on actions to meet the demand.

PRNC INV Scott Darling

TELE 802/773-7240

011 Turkey

1. To expand wild turkey range by trap-release into unoccupied areas.

MNGT IMP This project will result in the introduction of wild turkeys into suitable habitats to restore populations.

PRNC INV Scott Darling

TELE 802/773-7240.

012 Turkey

1. To prepare and evaluate results of spring and fall wild turkey hunting season.

MNGT IMP This project will provide information on the abundance, condition, or factors that affect turkey populations; to develop population and habitat management practices.

PRNC INV Scott Darling

TELE 802/773-7240

013 Turkey

1. To determine current status of statewide wild turkey population.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect wildlife populations to develop population and habitat practices.

PRNC INV Scott Darling

TELE 802/773-7240.

014 Black Bear

1. To collect and evaluate black bear harvest characteristics, population dynamics and physical aspects.

MNGT IMP This project will provide information on the abundance, condition, or factors that affect black bear populations; to develop population and habitat management practices.

MNGT IMP This project will also provide information on public use and demand for black bear and will aid in the determination of programs or actions to mmeet the demand.

PRNC INV Charles Willie

TELE 802/277-4913.

O15 Black Bear

1. To inform the public and various government agencies of Project progress.

MNGT IMP This project will provide information to assist the public resource managers and others in interpreting, understanding and utilizing research results.

PRNC INV Charles Willie

TELE 802/277-4913.

O16 Furbearers

1. To monitor population dynamics of certain furbearers (Bobcat, otter, fisher, coyote) in Vermont.
2. To provide a precise biological basis for regulation formation.

MNGT IMP This project will provide information on the abundance, condition or factors which affect furbearer populations and to develop population and habitat management practices.

PRNC INV Jim Distefano

TELE 802/886-2215.

O17 Feral Dog, Furbearers, Domestic Sheep

1. To investigate furbearer-domestic animal interactions in Vermont.

MNGT IMP This project will provide information used to assess human-wildlife conflicts to determine impact of certain furbearers on domestic livestock.

PRNC INV Jim Distefano

TELE 802/886-2215.

O18 Furbearers

1. To identify and inventory habitat needs of furbearers in Vermont.

MNGT IMP This project will result in the protection, development or improvement of furbearer habitat to sustain or enhance those populations.

PRNC INV Jim Distefano

TELE 802/886-2215.

O19 Coyote

1. To determine population status of coyote, and its significance as a predator of deer.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect coyote populations and to develop population and habitat management practices.

PRNC INV Dr. David Hirth

TELE 802/656-2684.

Virgin Islands

001 Reptiles

1. Determine population size, growth rates, and genetic composition of Hawksbill and Green Turtles.
2. Measure captive Green and Hawksbill Turtles at Coral World Aquarium to generate growth data to be compared to natural populations along with blood samples.

PRNC INV Ralf Boulon.

002 Reptiles

1. Determine the number of female leatherback turtle nesting on Sandy Point and seasonal reproductive potential.
2. Obtain morphometrics, tag turtles, and relocate nests in danger of washout.
3. Determine nest fates and factors affecting egg and juvenile mortality on Sandy Point nests.
4. Compare nest success of relocated nests to those left in situ.

PRNC INV Ralf Boulon.

003 Plant/Animal Ecology

1. To determine Virgin Islands plants important to wildlife.

PRNC INV John Yntema

004 Pelicans/Cormorants, Charadriiforms

1. To determine annually the location, population size, movement patterns, season and success of nesting.
2. Species of concern include seabirds, gulls, terns, boobies, tropic birds etc.

PRNC INV Robert L. Norton.

005 Albatroses, etc.

1. To evaluate the influence of clearing on nest success.

PRNC INV Ralf Boulon

TELE 809/775-3620.

006 Albatroses, etc.

1. To establish a second breeding population of Masked Booby in the Virgin Islands on Frenchcap Cay.

PRNC INV Ralf Boulon

TELE 809/775-3620.

Virgin Islands

007 Ducks

1. Determine the resident population size and movement patterns of Bahama Ducks.

PRNC INV Robert L. Norton.

Virginia

001 Furbearers

1. To continuously monitor the status and condition of furbearers in Virginia.

PRNC INV Jack Gwynn

TELE 804/257-1000.

002 Waterfowl

1. To continuously monitor the status and condition of migratory waterfowl populations in Virginia.

PRNC INV Fairfax Settle

TELE 804/257-1000.

003 Furbearers

1. To continuously monitor populations of raccoon, fox, bobcat, mink, otter, and beaver.

PRNC INV Joe Coggin

TELE 804/257-1000.

004 Whitetail Deer

1. To continuously monitor the status and condition of deer populations in Virginia.

PRNC INV Jack Gwynn

TELE 804/257-1000.

005 Black Bear

1. To continuously monitor and evaluate the status and condition of Virginia's Black Bear population.

PRNC INV Dennis Martin

TELE 804/257-1000.

006 Upland Game

1. To develop a system annually monitoring hunting pressure and other uses on public hunting lands.

PRNC INV Dennis Martin

TELE 804/257-1000.

Virginia

007 All Wildlife

1. To identify and keep current the research needs of the Virginia Game Division.

PRNC INV Jack Gwynn

TELE 804/257-1000.

008 Man

1. To estimate the number of participants, amount of effort expended and success of Virginia's hunters and trappers.
2. To estimate levels of abundance and trends in populations of wildlife in Virginia.

PRNC INV Jack Gwynn

TELE 804/257-1000.

009 Game Species

1. To identify and seek control methods for reducing serious wildlife damage to crops and property.
2. To assess deer damage to soybean crops.

PRNC INV W. H. Taylor

TELE 804/257-1000.

010 All Wildlife

1. To determine the incidence of exposure to tularemia leptospiresis, Rocky Mountain Spotted Fever, and other diseases in deer, wild turkey, quail, grouse, fox, raccoon, opossum, ground hogs and rabbits.
2. To identify, control, and/or prevent game and furbearer diseases and parasites in Virginia.

PRNC INV Jack Gwynn

TELE 804/257-1000.

011 Turkey

1. To continuously monitor the status of wild turkeys in Virginia.

MNGT IMP To determine survival and mortality rates and sources of mortatlity for wild turkeys associated with industrial forests.

PRNC INV Dennis Martin

TELE 804/257-1000.

Virginia

012 Grouse

1. To determine annual abundance and productivity of Ruffed Grouse in Virginia.

PRNC INV Joe Coggins

TELE 804/257-1000.

013 All Wildlife

1. To determine damage to wildlife as a result of contamination.

PRNC INV W. H. Taylor

TELE 804/257-1000.

014 Woodcock

1. To continuously monitor and evaluate the status and condition of Virginia's woodcock population.
2. To determine the effect of various habitat manipulating practices on woodcock use.

PRNC INV W. H. Taylor

TELE 804/257-1000.

015 All Wildlife

1. To develop a technique for estimating potential wildlife populations through habitat evaluations.

PRNC INV Joe Coggin

TELE 804/257-1000.

016 Aquatic Plants

1. To determine the effects of salinity and turbidity changes on aquatic vegetation in Back Bay, Virginia.

PRNC INV Fairfax Settle

TELE 804/257-1000.

017 Quail

1. To monitor the status and condition of Bobwhite quail populations in Virginia.
2. To determine the extent of chemical contaminents and their influences on Bobwhite quail.

PRNC INV Jack Gwynn

TELE 804/257-1000.

018 Mourning Dove

1. To continuously monitor and evaluate the status and condition of Virginia's dove population.

PRNC INV W. H. Taylor

TELE 804/257-1000.

Washington

001 Grizzly Bear

1. Determine grizzly distribution.
2. Determine grizzly seasonal habitat use patterns.
3. Determine grizzly seasonal food habitat.
4. Assess impact of human activity and current resource management practices on preferred habitat.

MNGT IMP Provide informational basis for developing strong guidelines and policies for management. Provide information for U.S. Forest Service's planning of forest resources. Provide information for recovery planning.

PRNC INV Jerry Hickman

TELE 206/753-2960.

002 Grizzly Bear

1. To determine grizzly bear distribution and home range.
2. To determine grizzly bear seasonal habitat use patterns.
3. To determine grizzly bear food habitats by season and to evaluate habitat importance on basis of importance of foods.

MNGT IMP Provide information basis for developing strong guidelines and policies for management. Provide information for U.S. Forest Service planning of forest resources. Provide information for recovery planning.

PRNC INV Jerry Hickman

TELE 509/456-4082.

003 Plant Ecology

1. Conduct site surveys.

MNGT IMP Will search and identify locations where five plants occur. Will record site and habitat data. Data will be used to initiate federal listing process.

PRNC INV Mark Sheeham

TELE 206/753-2449.

004 Cervids

1. To determine status, trend, productivity, survival, mortality, and distribution of big game populations statewide.
2. To determine effects of annual harvest of big game populations statewide.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing big game in Washington.

PRNC INV Rolf Johnson

TELE 206/753-5728.

005 Waterfowl

1. To determine relative production, status of fall flights, winter populations and hunter kill of waterfowl.
2. To develop a statewide waterfowl management plan.
3. To determine lead shot ingestion rates and lead levels in waterfowl.

MNGT IMP Collect information on abundance, harvest and movement of waterfowl in Washington necessary for developing strategies for managing waterfowl in Pacific Flyway and preparing statewide waterfowl plans for eight waterfowl management units.

PRNC INV R.J. Beach

TELE 206/573-5728.

006 Game Species

1. To determine annual harvest of game species through annual mail questionaire.

MNGT IMP Provide information for the purpose of developing appropriate strategies for managing all hunted game species in Washington.

PRNC INV Rolf Johnson

TELE 206/753-5728.

007 Pheasant, Grouse

1. To determine population trend and annual harvest of upland game including pheasant and sage grouse.

MNGT IMP Provide information for management to use in developing appropriate strategies for managing upland game in Washington.

PRNC INV R. J. Beach

TELE 206/753-5728.

008 All Wildlife

1. Evaluate and demonstrate thematic mapper imagery for land cover classification.
2. Develop a 1984 satellite imagery land cover classification for Washington.

MNGT IMP Provide information for use in compiling an inventory of wildlife habitats needed in developing management strategies for all wildlife species in Washington.

PRNC INV Larry Brewer

TELE 206/464-7764.

009 All Wildlife

Washington

1. To develop information files to compliment Landsat habitat data base.
2. To develop remote access capability.

MNGT IMP Provide information for use in compiling an inventory of wildlife habitats needed in developing management strategies for all wildlife species in Washington.

PRNC INV Larry Brewer

TELE 206/464-7764.

010 Mule Deer

1. To develop study plans.
2. To identify migration routes of mule deer wintering in Methow Valley.
3. To determine habitat use and characteristics. (Forest Service)

MNGT IMP Provide information for management to respond to habitat needs of Methow deer herds when portions of the wintering habitat is lost to development by man.

PRNC INV Dr. Ken Nixon

TELE 206/753-5728.

011 Cervids

1. To determine nutritional well-being of major big game herds in Washington thru DAPA analysis.

MNGT IMP Provide information regarding nutritional suitability of various wildlife habitats dependent upon by big game herds for the purpose of developing strategies for managing big game herd habitats in Washington.

PRNC INV Rolf Johnson

TELE 206/753-5728.

012 All Wildlife

1. To assess and describe the current distribution of the shrub steppe ecosystem in Eastern Washington.
2. To qualify the shrub steppe ecosystem by vegetative communities.
3. To determine rate of loss of shrub steppe habitat since 1975 and quantify the sources of reduction.
4. To assess and define the current state of shrub steppe habitat fragmentation.

MNGT IMP Provide information defining conditions and factors affecting the shrub steppe ecosystem for the purpose of developing management strategiess to benefit wildlife populations in Eastern Washington.

PRNC INV Larry Brewer

TELE 206/464-7764.

West Virginia

001 Mollusks

1. To determine distributional range, habitat characteristics, and physical measurements of the flat spired three-toothed land snail.

MNGT IMP This project will provide information on the abundance, condition or factors which affect snail populations.

PRNC INV Ken Knight

TELE 304/885-2771.

002 Bats

1. To identify and monitor caves which harbor colonies of bats. Virginia Big-Eared Bat; Indiana Bat.

MNGT IMP This project will result in the protection development or improvement of habitat to sustain or enhance those populations.

PRNC INV Ken Knight

TELE 304/885-2771.

003 Hawks/Eagles/Falcons

1. To reintroduce peregrine falcons into West Virginia.

MNGT IMP This project will result in the introduction of peregrine falcons into suitable habitats to restore populations.

PRNC INV Ken Knight

TELE 304/885-2771.

004 Hawks/Eagles/Falcons

1. To monitor and protect active Bald eagle nests in West Virginia.

MNGT IMP This project will result in the protection, development, or improvement of bald eagle habitat to sustain or enhance those populations.

PRNC INV Ken Knight

TELE 304/885-2771.

005 All Wildlife

1. To determine the prevalence of diseases and parasite in West Virginia's wildlife species.

MNGT IMP This project will be used to overcome or moderate biological limiting factors that affect growth or well-being of wildlife populations.

West Virginia

PRNC INV Tom Allen

TELE 304/636-1767.

006 Gray Squirrel

1. To determine abundance of selected wildlife foods for use as a guide to Grey squirrel trends.

MNGT IMP This project will provide information on the abundance, condition of various wildlife foods which affect squirrel populations.

PRNC INV Jim Pack

TELE 304/885-2771.

007 Grouse

1. To determine age and sex criteria for ruffed grouse.
2. To monitor ruffed grouse population trends.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect grouse populations.

PRNC INV Jim Pack

TELE 304/885-2771.

008 Turkey

1. To determine harvests, productivity, and population structure of wild turkeys by ecological region.
2. To delevop a system of classifying forest sites as to wild turkey brood habitat.
3. To examine and evaluate various wildlife management practices as on wild turkeys.

MNGT IMP This project will provide information on the abundance, condition, or factors which affect turkey populations and to develop population and habitat management practices.

PRNC INV Jim Pack

TELE 304/885-2771.

009 Whitetail Deer

1. To maintain and analyze records of legal kills and other mortalities.

MNGT IMP This project will provide information on the abundance, condition or factors which affect deer populations.

PRNC INV Tom Allen

TELE 304/636-1767.

West Virginia

010 Black Bear

1. To determine seasonal and non-seasonal bear mortalities.
2. To provide an index to population trends and productivity.
3. To obtain data on litter sizes and sex ratios.

MNGT IMP This project will provide information on the abundance, condition or factors which affect beer populations and to develop population and habitat management practices.

PRNC INV Joe Reffenberger

TELE 304/636-1767.

011 Otter, Fox

1. To determine the population status of foxes in West Virginia.
2. To reintroduce river otters into West Virginia

MNGT IMP This project will provide information on the abundance, condition or factors which affect fox populations. This project will result in the introduction of otters into suitable habitats to restore populations.

PRNC INV Joe Rieffenberger

TELE 304/636-1767.

012 Canada Geese

1. To determine population dynamics of selected waterfowl species by banding and banding analysis.

MNGT IMP This project will be used to assess management practices to determine their effectiveness toward accomplishment of management goals.

PRNC INV Jack Cromer

TELE 304/636-1767.

Wisconsin

001 Wolf

1. To monitor the distribution and population changes of timber wolves recolonizing northern Wisconsin.

MNGT IMP This study will result in the introduction of wildlife endangered species into suitable habitats to restore populations.

PRNC INV Ron Nicotera

TELE 608/266-2625.

002 Terrestrial Plants

1. To implement first-level priority recovery tasks recommended for Wisconsin in the National Recovery Plan.

MNGT IMP This study will provide information on public use and demand for wildlife and will aid in the determination of programs or actions to meet the demand.

PRNC INV Ron Nicotera

TELE 608/266-2625.

003 Grouse

1. Delineate geographic units in Northwestern Wisconsin having the best potential for extensive sharp-tailed grouse habitat management and develop guidelines for habitat management.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV L. Gregg

TELE 715/762-3204.

004 Canada Geese

1. To identify and monitor the environmental factors which influence reproductive condition of MVP geese during spring migration in Wisconsin.

PRNC INV To be assigned.

005 Quail

1. Implement and evaluate program of habitat restoration and winter feeding designed to increase bobwhite quail densities within areas of Richland County, Wisconsin.

MNGT IMP This study will be used to overcome, or moderate biological limiting factors that affect the growth or well-being of wildlife populations.

PRNC INV E. E. Woehler

Wisconsin

TELE 608/267-9431.

006 Grasses

1. Develop and evaluate techniques for meeting wildlife habitat needs on state areas through establishment of grasses, sedges and legumes and the control of undesired vegetation by fire, mechanical, and chemical means.

MNGT IMP This study will be used to overcome, or moderate biological limiting factors that affect the growth or well-being of wildlife populations.

PRNC INV E. E. Woehler

TELE 608/267-9431.

007 Pheasant

1. Determine current pheasant distribution.
2. Analyze habitat.
3. Develop habitat management guidelines for pheasant.

MNGT IMP This project will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV L. Peterson

TELE 608/267-9429.

008 Puddle Ducks

1. To determine if electric fencing around dense nest cover will effectively reduce nest losses to predation.

MNGT IMP This study will be used to assess management practices to determine their effectiveness toward accomplishment of management goals.

PRNC INV L. Peterson

TELE 608/267-9429.

009 Ducks, Predators, Aquatic Plants

1. Monitor waterfowl use on the Horicon study area and relate the physical properties of the cover, and the size and location of nesting fields to most predation by mammals.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Gerald Bartelt

Wisconsin

TELE 414/485-4434.

010 Canada Geese

1. Determine behavior and distribution of radio marked Canada geese at Horicon Marsh and Grand River Marsh Wisconsin in relation to the program to redistribute Canada geese in Mississippi Flyway.

MNGT IMP This study will provide information on public use and demand for wildlife and will aid in the determination of programs or actions to meet the demand.

PRNC INV Gerald Bartelt

TELE 414/485-4434.

011 Whitetail Deer

1. Determine fetal sex ratios, percent of fawns breeding, and natality by doe age-class to provide a basis for adjusting factors used to calculate annual deer populations.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV K. McCaffrey

TELE 715/369-3193.

012 Cottontail, Ducks, Pheasant

1. Evaluate the feasibility, costs, and benefits of conservation-oriented private lands management, implemented through a cooperative effort of federal, state, and county resource agencies, on a township-sized demonstration area.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV L. Peterson

TELE 608/267-9429.

013 Whitetail Deer

1. Refine forest opening management guidelines by determining amount of openings needed for maximum deer usage.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV K. McCaffery

TELE 715/369-3193.

O14 Marten

1. Evaluate the current reproductive status of an introduced pine marten population.
2. Establish a monitoring system to determine if additional stocking is needed to establish a self-sustaining population.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV B. Kohn

TELE 715/369-3193.

O15 Grouse

1. Measure harvest rates on designated sharptail areas.
2. Determine impact of hunting on populations.

MNGT IMP This study will provide information on public use and demand for wildlife and will aid in the determination of programs or actions to meet the demand.

PRNC INV L. Gregg

TELE 715/762-3204.

O16 Grouse

1. Maintain an index to grouse populations, hunting pressure, and harvests in the Central Forest region while providing a data base for future studies.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to devlop population and habitat management practices.

PRNC INV J. Kubisiak

TELE 715/884-2437.

O17 Ducks

1. Determine average brood survival estimates for ducks nesting in Southeast Wisconsin.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV W. Wheeler

TELE 414/485-4434.

Wisconsin

018 Ducks

1. Establish an index to mammalian predator numbers.
2. Determine the relationship between predator abundance and duck nest success.

MNGT IMP This study will be used to overcome, or moderate biological limiting factors that affect the growth or well being of wildlife populations.

PRNC INV G. Bartelt

TELE 414/485-4434.

019 Fisher

1. Estimate fisher distribution and densities, population trends and potential harvest rates.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV B. Kohn

TELE 715/369-3193.

020 Grouse

1. Evaluate changes in ruffed grouse numbers and distribution in response to a long-range management program in which wildlife production is a primary goal; and demonstrate practices applicable to the Oak-Aspen forests of central Wisconsin and similar ranges.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV J. Kubisiak

TELE 715/884-2437.

021 Whitetail Deer

1. Evaluate the impact of complete removal and subsequent re-introduction of deer on (a) forest ecology and range condition following a period of low deer numbers; and on (b) populatons buildup, body weights, antler growth, and productivity; to aid in adjusting over winter deer population goals for Sandhill and similiar areas in central Wisconsin.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV J. Kubisiak

TELE 715/884-2437.

Wisconsin

022 Whitetail Deer

1. Provide wildlife managers with current information on deer population levels, production, mortality, and impact of harvests necessary to develop sound harvest recommendations.

MNGT IMP This study will provide information on public use and demand for wildlife and will aid in the determination of programs or actions to meet the demand.

PRNC INV V. Creed

TELE 715/369-3193.

023 Grouse

1. Demonstrate and evaluate responses in ruffed grouse populations and harvests in relation to management costs during the first 18 years of a coordinated forest-wildlife habitat program.

MNGT IMP This study will provide information on public use and demand for wildlife and will aid in the determination of programs or actions to meet the demand.

PRNC INV K. McCaffery

TELE 715/369-3193.

024 Game Species

1. Develop wildlife management habitat guidelines for southern Wisconsin woodlots.
2. Determine wildlife impacts of timber cutting strategies. Species of interest include gray and fox squirrels, whitetail deer, small and big game.
3. Determine status of wildlife habitat components particularly snags and deadfalls.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV R. Gatti

TELE 608/266-1041.

025 Ducks, Pheasant, Grasses

1. Evaluate switchgrass nest cover for pheasants and ducks.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Bob Dumke

TELE 608/266-3011.

026 Ducks, Pheasant

1. Determine waterfowl and upland bird nesting success within fenced plots and on adjacent nesting cover.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Bob Dumke

TELE 608/266-3011.

027 All Wildlife

1. Develop a 10 year wildlife plan for private lands.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV Bob Dumke

TELE 608/266-3011.

028 Black Bear

1. Interpret changes in bear age composition as they relate to harvest rates production and survival.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Bob Dumke

TELE 608/266-3011.

029 Ducks, Pheasant

1. Monitor waterfowl and pheasant breeding populations and production.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Bob Dumke

TELE 608/266-3011.

030 Bobcat

1. To improve bobcat population indices to the point where regional population differences are more reliably reflected.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV W.A. Creed, L.E. Gregg, J.E. Ashbrenner.

031 All Wildlife

1. To refine guidelines to maintain or improve habitat quality for deer, ruffed grouse, and other forest wildlife in the Central Forest of Wisconsin.

MNGT IMP This study will result in the protection, development, or improvement of wildlife habitat to sustain or enhance wildlife populations.

PRNC INV J.F. Kubisiak.

032 Plant Ecology

1. To develop management strategies for purple loosestrife in Wisconsin.

MNGT IMP This study will be used to overcome or moderate biological limiting factors that affect the growth or well-being of wildlife populations.

PRNC INV E.E. Woehler.

033 Pheasant

1. To determine habitat preference, habitat use patterns, and spatial/ temporal distribution of pheasant hens and broods during spring and summer.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV W.J. Vander Zouwen.

034 Diving Ducks

1. To determine the status of canvasback populations and diving duck migrational habitats in Wisconsin.
2. To evaluate rehabilitation techniques for aquatic ecosystems used as migrational habitats by diving ducks.

MNGT IMP This study will provide information on the abundance, condition, or factors which affect wildlife populations so as to develop population and habitat management practices.

PRNC INV Bob Dumke

TELE 608/266-3237.

Wyoming

001 Cervids

1. Diagnose, describe and inventory diseases and recommend control measures.

MNGT IMP Maintain current data on disease problems and assure ability to respond to any problem involving livestock or other important economic resources in the state.

PRNC INV Tom Thorne

TELE 307/745-5865.

002 Wild Sheep

1. To establish physiologic and heart rate parameters in unstressed and stressed captive bighorn sheep.
2. To begin monitoring of physiologic and heart rate parameters in stressed, recently captured bighorn sheep.

MNGT IMP Will provide information to managers to try to decrease mortalities to sheep from stress factors.

PRNC INV Dr. Tom Thorne

TELE 307/745-5865.

003 Endangered Birds

1. To document habitats important to whooping cranes in western Wyoming.

MNGT IMP Will help Wyoming and the U.S. Fish and Wildlife Service meet goals established in the Whooping Crane Recovery Plan.

004 Grizzly Bear

1. To provide documentation of grizzly bear population and habitat preference within the State of Wyoming to the Interagency Grizzly Bear Study Team.
2. To evaluate adversive conditioning agents on problem grizzly bears in the yellowstone ecosystem.

MNGT IMP Will help Wyoming and the U.S. Fish and Wildlife Service meet goals established in the Grizzly Bear Recovery Plan.

PRNC INV Larry Roop

005 Endangered Birds

MNGT IMP Will help Wyoming and the U.S. Fish and Wildlife Service meet goals established in the Rocky Mountain/American Peregrine Falcon Recovery Plan.

PRNC INV Bob Oakleaf

TELE 307/332-3750.

006 Amphibians

1. To document status of Wyoming toad, available habitat, and provide recommendations for protection.

MNGT IMP Will help to determine the status and distribution of the species so that managers will know how to approach recovery.

PRNC INV Mike Stone

TELE 307/777-7632.

007 Ferret

1. To coordinate ferret research, impacts, evaluation of results, and dissemination of information from the research team.
2. To search prairie dog towns with a history of black-footed ferret reports to attempt to locate more ferret populations.

MNGT IMP Will help Wyoming and the U.S. Fish and Wildlife Serivce meet goals established in the Black-footed Feret Recovery Plan.

PRNC INV Dave Belitsky

TELE 307/527-7125.

Appendix I

STUDY TYPE TABLE

Amplification of the Research/Survey Classification

A. GENERAL - BROAD-BASED STUDIES THAT ENCOMPASS WIDE AREAS

01 - Planning - Statewide planning, management planning, river basin planning, area planning

02 - Users - fishermen surveys, hunter surveys, recreation surveys, non-consumptive users, opinion polls

03 - Economics - value of catch or harvest, value of experience, value of fish, wildlife or wilderness, value to locality, State or Nation

04 - Research techniques - general, sampling, tagging, tracking, collecting, trapping, reporting, development of methods for research

B. ANIMAL-ORIENTED - SPECIES-ORIENTED

05 - Life history - general animal ecology

06 - Systematics - distribution, meristics, races, serology, cytotaxonomy, morphometry, zoogeography

07 - Anatomy & physiology - scales, bones, pelage, structure, sexual dimorphism, plumage, moulting, digestion, nutrition

08 - Food habits - quantity, quality, competition, depredation, cannibalism

09 - Reproduction - fecundity, fertility, reproductive behavior, breeding cycles, spawning, incubation, spawning grounds, sex pheromones, attractants, repellents, sterilants

10 - Age & growth - age determination, scale reading, otoliths, teeth, antlers, eye lens, rate of growth, stunting, longevity

11 - Mortality - natural, unnatural, storms, temperature changes, floods, highway, towers, fences, powerhouse intakes, irrigation ditches, mowing, predation

12 - Diseases & parasites - incidence, causes, treatment, epidemics, bacteria, protozoa, virus

13 - Behavior - diurnal, diel, aggressive, discrimination, home range, alarm signals, schooling aggregation

14 - Migration - seasonal, annual, navigation, homing routes

15 - Populations - dynamics, fluctuations, year-classes, cycles

16 - Harvest - management survey, creel census, bag check, special regulations, commercial harvest, fur harvest, gear restrictions, quotas, evaluation of regulations

17 - Animal control - shooting, trapping, poisoning, predators, disease, repellant, sterilization, fencing, frightening techniques

18 - Culture & rearing - spawning, breeding, fertilization, incubation, feeding, water, genetics, nutrition

19 - Stocking - species, strain, race, stamina, number, age, sex ratio, conditioning, time, transportation, handling, release, survival, evaluation, introduction, reintroduction, reestablishment

C. ENVIRONMENTAL-ORIENTED - HABITATS

20 - Habitats - general

21 - Water quantity - flow control, water level control, drawdown, tide gates, gut plugs, impoundments, diking, stock tanks, guzzlers, watering device, potholes, level ditching

22 - Water quality - oxygenation, destratification, liming, outflow control, fertilization, silting basin, temperature modification

23 - Food production or provision - food planting, feeding device, artificial feeding, bulldozing, controlled burning

24 - Plant production - tree and shrub planting, timber management, herbaceous seedings, erosion control plantings

25 - Plant control - cutting, burning, chemical control, creation of openings, chaining, cabling, dozing, thinning, grazing, insects, plant diseases

26 - Reproduction aid - nest boxes, spawning channels, courtship sites, nest structures, spawning marsh, spawning ground, fawning or calving grounds, brush piles

27 - Passage & movement - fishways, fish licks, guide fences, tunnels, deflectors, ladders, watergates, louvers, counting chambers

28 - Barriers - fish screen, big game fence, barrier dams, livestock fence

29 - Stream improvements - stream clearing, deflectors, wing dam, rip-rap, contouring, terracing, gabions

30 - Lake improvements - brush shelters, cleared areas, edging, fish attractor, access

31 - Coastal improvements - artificial reefs

D. ENVIRONMENTAL DETERIORATION

32 - Channelization - stream straightening, deepening

33 - Dredging - hydraulic dredge, channel deepening, navigation

34 - Filling - bulkheading, spoilbanks, development

35 - Draining - drainage ditches

36 - Irrigation - canals, siphons, intakes

37 - Dams - reservoirs, hydroelectric, navigation

38 - Mining - strip, mine tailings

39 - Agriculture - clear farming

40 - Forestry - clearcutting, block cutting, rotation cutting, selective cutting

41 - Highways

42 - Airports

43 - Developments

E. POLLUTION

44 - Industrial

45 - Mining

46 - Agricultural

47 - Domestic

48 - Thermal

49 - Oil

50 - Heavy metals

51 - Pesticides

52 - Siltation

53 - General

54 - Aquacultural

F. OTHER

60 - Management techniques

61 - Not applicable

62 - Basic survey - monitoring activities usually of a broad environmental nature which often utilize a variety of study types

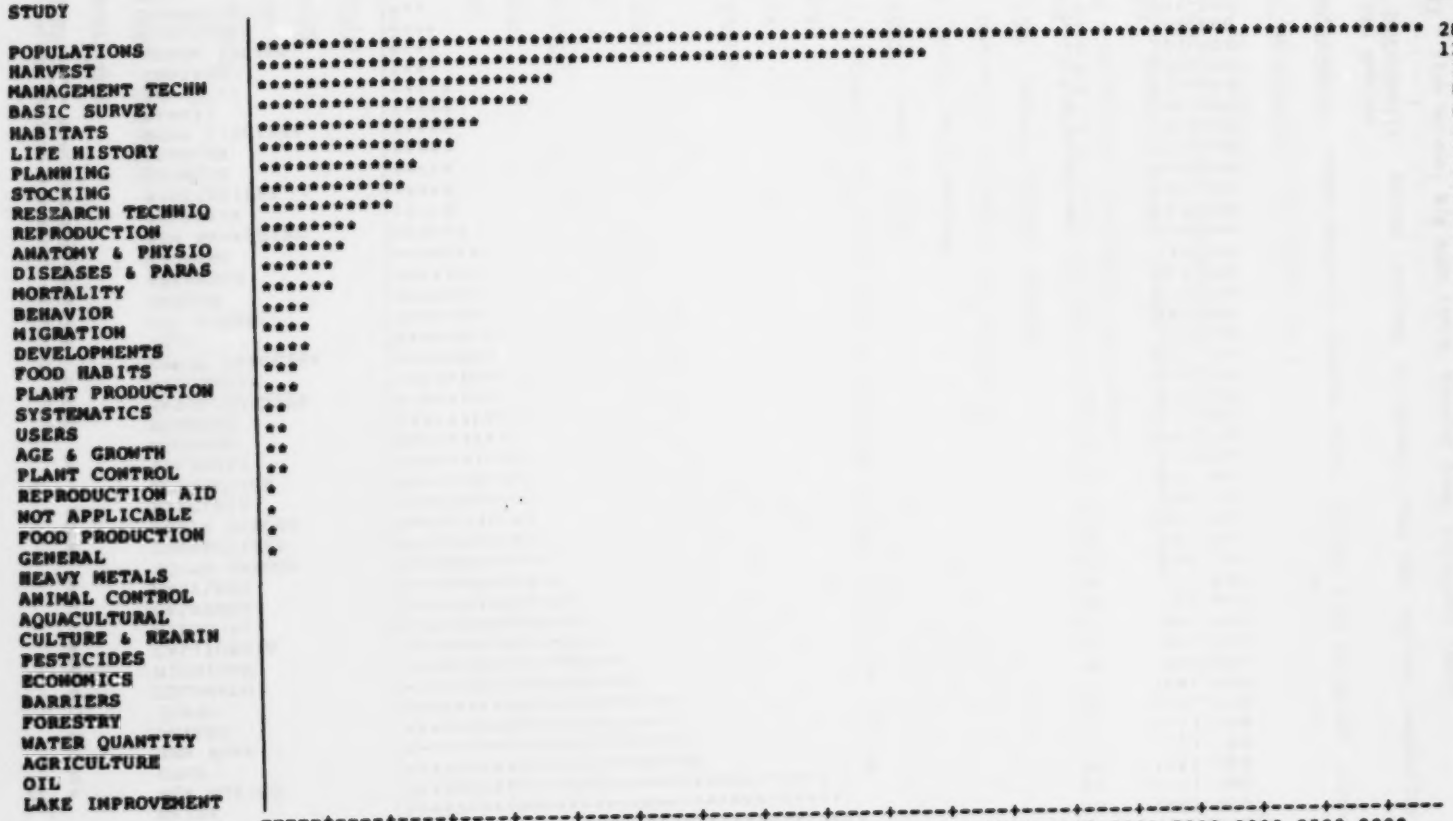
WILDLIFE REPORT: COST SUMMARY BY STATE (IN THOUSANDS)

BAR CHART OF SUMS

STATE	FREQ	COSTS SUM
TEXAS	66	2585.000
ALASKA	53	2536.200
MONTANA	18	2129.800
ARIZONA	31	1866.000
MAINE	23	1731.700
NEW MEXICO	38	1695.200
UTAH	32	1222.100
NEW YORK	33	1153.900
NEVADA	38	1101.700
IDAHO	25	1086.900
COLORADO	39	960.000
MICHIGAN	17	895.200
CALIFORNIA	17	807.700
MISSOURI	40	767.800
OKLAHOMA	28	723.900
MARYLAND	47	629.200
SOUTH DAKOTA	26	585.300
CONNECTICUT	12	563.000
NORTH DAKOTA	34	540.700
VIRGINIA	18	523.400
WASHINGTON	12	519.900
ILLINOIS	26	497.100
FLORIDA	22	431.000
VERMONT	19	425.500
MASSACHUSETTS	16	406.800
WISCONSIN	34	401.700
NORTH CAROLINA	15	389.300
OHIO	20	387.000
NEW JERSEY	24	372.500
OREGON	10	367.200
ARKANSAS	17	335.200
WYOMING	7	330.900
NEW HAMPSHIRE	21	317.500
DELAWARE	10	265.000
MISSISSIPPI	11	260.900
GEORGIA	23	257.200
ALABAMA	14	251.700
WEST VIRGINIA	12	250.000
HAWAII	9	239.000
KENTUCKY	9	225.200
INDIANA	14	223.500
RHODE ISLAND	12	215.600
LOUISIANA	4	204.800
PUERTO RICO	5	164.000
IOWA	6	126.000
NO MARIANA ISLE	5	108.500
AMERICAN SAMOA	4	107.400
SOUTH CAROLINA	8	104.900
GUAM	5	59.000
NEBRASKA	3	49.700
VIRGIN ISLANDS	7	46.900
KANSAS	4	25.600
MINNESOTA	1	15.000
TOTALS	1044	$32486.200

WILDLIFE REPORT: COST SUMMARY BY STUDY (IN THOUSANDS)

BAR CHART OF SUMS



STUDY	FREQ	COSTS SUM
POPULATIONS	289	9397.600
HARVEST	128	5406.200
MANAGEMENT TECHN	32	2404.400
BASIC SURVEY	86	2228.800
HABITATS	65	1793.400
LIFE HISTORY	47	1579.500
PLANNING	34	1297.000
STOCKING	60	1240.500
RESEARCH TECHNIQ	33	1061.500
REPRODUCTION	41	789.500
ANATOMY & PHYSIO	18	686.500
DISEASES & PARAS	32	648.000
MORTALITY	21	620.600
BEHAVIOR	20	443.600
MIGRATION	17	431.600
DEVELOPMENTS	8	399.000
FOOD HABITS	18	271.700
PLANT PRODUCTION	16	269.500
SYSTEMATICS	12	243.200
USERS	15	226.100
AGE & GROWTH	7	203.800
PLANT CONTROL	10	160.300
REPRODUCTION AID	6	140.300
NOT APPLICABLE	4	139.800
FOOD PRODUCTION	6	95.600
GENERAL	1	81.000
HEAVY METALS	5	48.300
ANIMAL CONTROL	2	44.000
AQUACULTURAL	2	31.600
CULTURE & REARIN	1	19.500
PESTICIDES	1	16.000
ECONOMICS	1	12.700
BARRIERS	1	12.000
FORESTRY	1	11.300
WATER QUANTITY	1	10.000
AGRICULTURE	1	10.000
OIL	1	6.000
LAKE IMPROVEMENT	1	3.800
TOTALS	1044	$32486.200

WILDLIFE REPORT: COST SUMMARY BY HABITAT (IN THOUSANDS)

General/Multiple Habitats	$10425.2
Forest Land	6119.4
Wetlands/Riparian	3052.4
Mixed Hardwoods and Conifers	1635.3
Conifers	1390.6
Rangeland	947.5
Tundra	747.8
Agricultural Land	743.1
Mixed Range	672.1
Hardwoods (Generally Deciduous)	459.5
Not Applicable	423.7
Non-Forested (Marsh)/Everglades	393.7
Outdoor Laboratory - Terrestial (Pens)	339.1
Shrub-Brushland Range	301.2
Cropland and Pasture	276.2
Herbaceous Range	254.5
Desert Shrub	244.2
General Agricultural Land	234.7
Exposed Bare Rock	217.0
Laboratory (General)	205.7
Forested (Swamp)	202.4
Urban and Built-Up Land	134.5
Indoor Laboratory/Facility	115.4
Coastal Waters	102.8
Beaches/Mudflats	82.0
Water (Multi-Aquatic)	72.0
Reservoirs (Over 40 Acres)	55.4
Bays/Estuaries	36.6
Ponds (40 Acres or Less)	28.2
Barren Land	26.6
Salt Marsh	24.0
Streams/Canals	15.1
Rivers (Large Navigable Streams)	10.0
Total	$29,987.9

Note: The total figure does not equal the same totals shown in the other appendices because the difference represents the "unclassified" habitat category and was not included in this Cost Summary.

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OBLIGATION BY STUDY TYPE OF STATE WILDLIFE RESEARCH SUPPORTED BY P-R FUNDS (1,000's) FOR CALENDAR YEAR 1986

	PLANNING	USERS	ECONOMICS	RESEARCH TECH.	LIFE HISTORY	SYSTEMATICS	ANATOMY AND PHYSIOLOGY	FOOD HABITS	REPRODUCTION	AGE AND GROWTH	MORTALITY	DISEASES AND PARASITES	BEHAVIOR	MIGRATION	POPULATION	HARVEST	ANIMAL CONTROL	CULTURE AND REARING	STOCKING	HABITATS	WATER QUALITY	FOOD PRODUCTION OR PROVISION	PLANT PRODUCTION	PLANT CONTROL	REPRODUCTION AID	BARRIER BARRIERS	LAKE IMPROVEMENTS	AGRICULTURE	FORESTRY	DEVELOPMENTS	OIL	HEAVY METALS	PESTICIDES	GENERAL	AQUACULTURAL	MANAGEMENT TECHNIQUES	BASIC SURVEY	TOTALS	
ALABAMA									22.4	9.0		8.0	61.4		51.1	37.8			21.8																		40.2	251.7	ALABAMA
ALASKA				60.5	428.3	8.4	218.4		193.0			101.1	11.2	82.8	742.2					326.8										244.9						106.2	12.4	2536.2	ALASKA
AMERICAN SAMOA																				7.2																100.2	107.4	AMERICAN SAMOA
ARIZONA	15.9	6.5		52.5							268.3	4.3		173.1	124.4	948.6			57.2				31.0				10.0							80.5	89.4	1861.7	ARIZONA
ARKANSAS				4.9					13.4			8.5			29.3	95.5			38.8	6.6		32.3		17.3											88.6	335.2	ARKANSAS
CALIFORNIA	192.9												15.2		100.9					46.3															252.4	807.7	CALIFORNIA
COLORADO		10.2		73.0	107.0	25.0	133.1	62.3	21.1				40.6		277.1	11.3				129.7				21.7											16.1	31.8	980.0	COLORADO
CONNECTICUT															277.7	35.2				17.4															232.7	563.0	CONNECTICUT
DELAWARE									13.0						10.0	209.0			33.0																		265.0	DELAWARE
FLORIDA				3.8	51.2			5.2	3.0			55.1	30.0		85.6	84.8			13.5													10.0			34.6	54.2	431.0	FLORIDA
GEORGIA								18.8	39.3			5.3			85.0	39.7			20.0					4:3											38.2	6.6	257.2	GEORGIA
GUAM															29.5																					29.5	59.0	GUAM
HAWAII					7.1										229.3							2.6															239.0	HAWAII
IDAHO				179.5									70.6		343.9	70.6				79.2									126.1						187.0	30.0	1086.9	IDAHO
ILLINOIS	147.3			39.9							22.6	19.4		49.8	144.1	30.5			8.0	26.9																8.6	497.1	ILLINOIS
INDIANA	3.1			19.4							2.3	9.3	22.8		25.5	141.1																					223.5	INDIANA
IOWA					11.3			26.6												88.1																	126.0	IOWA
KANSAS															2.8				23.6																	25.6	KANSAS
KENTUCKY											16.4	4.1			198.6	2.5																					225.2	KENTUCKY
LOUISIANA									4.2										24.3																	176.3	204.8	LOUISIANA
MAINE															1540.7				36.0	0.7															154.3	1731.7	MAINE
MARYLAND		10.1		9.5				1.8	22.3			7.0	37.0	7.8	285.1	84.4			59.4	24.8															13.0	67.0	629.2	MARYLAND
MASSACHUSETTS	9.0			6.0					8.8					12.0	181.8	58.6			79.6					13.0										38.0		406.8	MASSACHUSETTS
MICHIGAN		29.3		245.3			83.3								94.5	237.9			32.3											6.0					84.8		813.4	MICHIGAN
MINNESOTA																			15.0																		15.0	MINNESOTA
MISSISSIPPI		30.9							25.0	4.5		8.3	21.8		69.7							40.4														40.3	260.9	MISSISSIPPI
MISSOURI	56.6	48.8			61.0			42.4	50.3						280.5	54.1			9.0	39.1			66.8					11.3								47.9	767.8	MISSOURI
MONTANA					359.8	39.0		28.0	85.0		66.7		25.4		29.4	18.6			13.0	4.3														1460.6			2129.8	MONTANA
NEBRASKA									29.7					10.0	10.0																					49.7	NEBRASKA
NEVADA	101.0					42.5							33.5		540.0	11.6			217.0	2.8											9.2				144.1	1101.7	NEVADA
NEW HAMPSHIRE					36.4				4.4		39.0				18.1	126.0			56.4	10.0																27.2	317.5	NEW HAMPSHIRE
NEW JERSEY				3.4		13.5	107.9				91.2	41.4			88.6	4.8			7.5																11.1	3.1	372.5	NEW JERSEY
NEW MEXICO				195.0	25.3	13.3	22.0					18.0		7.0	327.2	908.4			92.2	13.7											14.9				47.3	10.9	1695.2	NEW MEXICO
NEW YORK	246.8			7.9	1.3										111.0	60.2				229.8					81.0							16.0	81.0	19.6	12.0	287.5	589.3	NEW YORK
NORTH CAROLINA		9.0			27.2	27.5						10.0			196.4	83.2			30.0	6.0																	540.7	NORTH CAROLINA
NORTH DAKOTA					68.6			10.8			13.8	60.0		40.8	256.4	24.3		19.5	1.5				10.5	34.5												108.5	108.5	NORTH DAKOTA
NO. MARINA ISLES																																						NO. MARIANA ISLES
OHIO	12.5	22.5											10.2		30.5	148.0			78.8	84.5																7.3	387.0	OHIO
OKLAHOMA	98.8	7.6					36.4	5.6	38.5			22.2			130.3	219.5			89.8												14.2					10.0	670.2	OKLAHOMA
OREGON	59.3			45.8										21.6	35.3					195.2																367.2	OREGON
PENNSYLVANIA																																					0	PENNSYLVANIA
PUERTO RICO					62.5										32.3	36.5				32.7																	164.0	PUERTO RICO
RHODE ISLAND	27.0											27.0			67.6	18.0																			10.0	66.0	215.6	RHODE ISLAND
SOUTH CAROLINA					8.0				42.8			7.0			3.3				16.0																	27.8	104.9	SOUTH CAROLINA
SOUTH DAKOTA										2.3		20.0	9.0		405.6	19.5			57.6	41.5			15.8	14.0													585.3	SOUTH DAKOTA
TENNESSEE																																					0	TENNESSEE
TEXAS	213.7			91.0	16.6		77.0		110.0	188.0	49.5		11.9		198.3	1324.2	20.0		33.1	32.1	10.0			60.0		12.0	3.8								41.7	92.1	2585.0	TEXAS
UTAH					19.0	70.0		28.8				12.5			684.2	44.8			51.5	148.6		19.2	137.0	6.5													1222.1	UTAH
VERMONT	8.3				20.3			32.0					31.0		200.3	35.6			2.0	4.0									28.0					44.0	20.0	425.5	VERMONT
VIRGIN ISLANDS									27.3						6.4				2.6																10.6	46.9	VIRGIN ISLANDS
VIRGINIA	19.0	31.2		19.6							9.0	58.5			350.1		24.0																	12.0		43.3	523.4	VIRGINIA
WASHINGTON	85.6				36.9			5.9						26.7		144.1				127.4																59.0	519.9	WASHINGTON
WEST VIRGINIA				4.5	78.0	4.0		3.5			36.0	13.5			31.3																					250.0	WEST VIRGINIA
WISCONSIN	0.2		12.7		2.9				36.0		5.8				206.3	37.3				18.0		1.1	4.8	23.6	24.7										25.0	3.3	401.7	WISCONSIN
WYOMING					151.0		10.4					127.5	12.0		10.0				20.0																		330.9	WYOMING
GRAND TOTALS	1297.0	226.1	12.7	1061.5	1579.5	243.2	688.5	271.7	789.5	203.8	620.6	648.0	443.6	431.6	9397.6	5406.2	44.0	19.5	1240.5	1793.4	10.0	95.6	269.5	160.3	140.3	12.0	3.8	10.0	11.3	399.0	6.0	48.3	18.0	81.0	31.6	2404.6	2228.0	32,346.4	GRAND TOTALS